

INDEX

Fiftieth Quarto Volume—January 1, 1911, to June 30, 1911

AUTHORS

Acworth, W. M., 10, 75, 114, 155,
200, 1143, 1195, 1245, 1315

Alden, Charles L., 1061

Allen, A. B., 11

Angier, F. J., 1426

Argo, J. J., 287

Ashmead, P. H., 1684

Ballantine, N. D., 1027

Baranger, W. C., 681

Bennett, R. G., 221, 393, 1259

Bird, Paul P., 321

Borer, Frank J., 403, 842

Bremner, George H., 1176

Brombacher, Max H. C., 1252

Brown, R. E., 405

Brown, Stephen H., 1407

Burnett, R. W., 397

Burrhus, H. L., 30, 406, 1049

Bury, George, 1681

Calder, John, 416

Campbell, J. L., 897

Carden, Captain Godfrey L., 399, 860

Carter, W. S., 979

Castle, O. C., 978

Clark, R. W., 847

Clausen, L. R., 1102

Cleveland, H. H., 1422

Clough, A. M., 1419, 1422

Crowley, C. J., 245

Curtis, T. H., 1550*

Dean, F. W., 73

Delano, Frederic A., 12, 825, 1098

Demarest, T. W., 414

Dewsnup, Ernest R., 497

Dougherty, N. F., 1037

Dryden, T. M., 1064

Fetner, W. H., 408

Finty, Tom Jr., 4

Foote, F. S., Jr., 452

Forsyth, William, 491, 682

Fowler, Clarence P., 506

Fowler, George L., 195, 270, 316,
783

Francis, George B., 991

Freeman, Lewis B., 1241

Freeman, T. E., 863

Fritch, L. C., 585, 1193

Fuller, C. E., 1369*

Ganley, M., 1424

Gardner, Henry, 1070

Goldie, William, 111

Graham, A. A., 314
Green, C. F., 1420

Haig, M. H., 278
Hale, Joseph W. L., 1073
Hamer, Harrie R., 402
Hamm, John M., 48
Harahan, W. J., 212
Harrison, Fairfax, 897
Hedley, Frank, 73
Hine, Major Charles D., 1194
Hobson, J. S., 131
Holder, H., 215
Hoogen, Mr., 89
Huber, R., 1421
Hutchins, F. Lincoln, 269

Johnston, W. E., 73
Joyce, M., 1423

Keefe, Richard, 1058
Kelly, J. O., 1680
Keough, Emmet, 1427
Krutschmitt, Julius, 1028
Kyle, R. P., 1421

Landon, H. C., 78
Lauck, W. J., 1201
Lavis, Fred, 681
Le Boutilier, G., 1419
Le Compte, John V., 46, 864
Leech, C. C., 22, 411, 843, 1072,
1261
Leigh, E. B., 4
Lewis, B. N., 1058
Linn, John H., 1054

M'Cartney, H. M., 937
M'Donald, Hunter, 1428
McCarty, R. J., 1156
McVeigh, E. J., 1103, 1235
Magill, Samuel, 1065
Maguire, M. W., 1645
Maier, Charles, 31, 866
Malcolmson, Charles T., 1206
Mann, Clyde A., 312
Markland, W. H., 1274
Maxfield, H. H., 1065
Mears, N. A., 1247
Melcher, F. O., 1235
Morrisey, P. H., 934
Morrison, C. J., 396, 1303
Moulton, H. G., 1237
Mudge, H. U., 289
Murray, William S., 907

Naylor, Thomas, 1057

Orwig, Robert H., 1422

Pancost, A. G., 25, 395, 1279
Payne, J. L., 8
Pearce, H. C., 5, 85, 112, 161, 201,
276
Perritt, J. F., 32
Perry, J. P. H., 997
Pitard, J. H., 40
Prior, J. H., 826

Randolph, Carman F., 1699
Rattek, F., 24
Rauch, H. S., 1048, 1053
Raymond, William G., 154
Reyer, William G., 48, 243, 1071
Richardson, F. M. M., 1257
Riley, C. C., 1100
Ripley, William Z., 695
Roy, Arthur R. S., 799
Rudd, A. H., 893

Saward, F. W., 490
Schlacks, W. J., 1400
See, S. S., 28
Sills, J. M., 1421
Smith, P. F., 225
Snyder, W. H., 21, 47, 398
Spade, W. P., 46
Starr, H. H., 980
Stevens, H. C., 1247
Stewart, L. M., 392
Stone, C. E., 30
Strohm, C. B., 1001
Strombeck, J. F., 1402, 1696

Thomas, F. W., 51
Thompson, S. A., 1682
Totten, Robert C., 268
Turner, L. H., 212
Turner, Walter V., 1316

Van Alstyne, David, 1051
Van Wormer, R. B., 392
Voges, C. H., 20
Von Schrenk, Hermann, 1174

Westbrook, M. H., 217
Wolfgang, William H., 1068
Worthington, W. A., 935

Yeomans, George G., 1205, 1401,
1681

GENERAL INDEX

[Illustrated articles are indicated thus*; Editorials thus†; Letters to Editor thus‡.]

A

Abrasives (See Machine Tools; also Shop Kinks)
 Acetylene (See Iron and Steel; also Welding)
 Accident:
 Aeroplane, 1120
 Atlantic Coast Line at Alapaha, Ga., 802
 Automobile Speed Limit, 1231†
 Boiler Accidents, 701, 1285
 British Record, 1436
 C. B. & Q. near Indianola, Neb., 1322
 Collision at Courville, France, 327
 Explosion at Grand Central Terminal, 291
 Illinois Central Train Accident Record, 673†, 820†, 1411
 Industrial, 416*, 1699
 I. C. C. Bulletin No. 37, 265†, 282*
 I. C. C. Bulletin No. 38, 1111*
 Kowic Railway at Blaauwkrantz, 1004
 League for Public Safety, 193†, 194†, 312†
 Midland Railway, England, 90
 Monthly Summaries: December, 1910, 172;
 January, 351; February, 830; March, 942;
 April, 1214; May, 1659
 New York Central, Batavia, N. Y., 132
 N. Y., N. H. & H. near Fairfield, Conn., 1322
 Northern Pacific, Cheney, Wash., 63
 Pennsylvania Railroad Derailment at Martin's Creek, 1076, 1643†, 1655, 1677†
 Pennsylvania Train Accident Record, 674†
 Pennsylvania State, 247
 Philadelphia & Reading at Philadelphia, 1702
 Prevention by Law in Indiana, 192†, 309†
 Reports by Telegraph to the I. C. C., 1678†
 Safety Committees on the Chicago & North Western, 349*, 910
 Southern Pacific near Palisade, Nev., 372
 Union Pacific's Efficiency Tests, 673†, 820†
 Accounting (See also American Railway Accounting Officers' Association)
 American and Foreign Ry. Statistics, 918, 1703
 Am. Ry. Eng. & M. of W. Assoc. Report on Records and Accounts, 748*, 749*
 Function of the Accounting Department, 508
 Maintenance of Equipment Costs, 512, 1303*
 Maintenance of Way Cost Data, 1416
 N. Y. C. & H. R. Stock Watering, 490†, 781†
 Side Tracks, Records, 975†
 Standard Material Classification, 1247, 1398†
 Acme Supply Co.:
 Metal Weather Strip for Coach Window Sash, 974*
 Adams & Westlake Co.:
 Adlake Lamps, 619, 1394*
 Adlake Washstand, 1540*
 Basket Rack, 1588*
 Aeroplane:
 Distance Record, 53
 Flights, 174, 247, 291, 468, 801, 867, 913, 957, 1003, 1178, 1285, 1435
 Agriculture:
 New England Industries, 1097†
 Prizes Offered, 1286
 Air Brake (See Brake)
 Air Brake Association:
 Annual Convention, 1212
 Discussion on Breaking-in-Two of Freight Trains, 1414
 Air Compressor (See Compressed Air; also Shop Kinks)
 Allith Mfg. Co.:
 Hardware Door Equipment, 765
 American Association of Demurrage Officers:
 Annual Convention, 1691
 American Association of Local Freight Agents:
 Annual Convention, 1698
 American Association of Refrigeration:
 Annual Meeting, 1159
 American Blower Co.:
 Disc Ventilating Fan, 1021*
 Tunnel Ventilation, 373*
 American Bridge Co.:
 Kentucky River High Bridge, 980*
 American Car & Foundry Co.:
 Allen Car Ventilator, 1268*
 Steel Postal Cars for the Pennsylvania, 1574*
 American and Foreign Railway Figures, 918, 1703
 American Electric Railway Association:
 Committee on Signaling, 658
 American Goetze Gasket & Packing Co.:
 Goetze Valve-Gasket, 67*
 American Line Steamship Co.:
 Pacific Coast Rate Cases, 872
 American Locomotive Co.:
 Four-Cylinder Balanced Simple Locomotives; Chicago, Rock Island & Pacific, 41*
 Four-Eight-Two for Natal Government Railway, 509*
 Mallet Locomotives; Baltimore & Ohio, 1346*

Mallet Locomotives Built and Under Construction, 954
 Mallet Locomotive; Chicago, Milwaukee & St. Paul, 942*
 Mallet Locomotive for Natal Government Railway, 509*
 Mountain Type Locomotive, 1545
 Pacific Type Locomotives; New York Central Lines, 785*
 Pacific Type Superheater Locomotive; Chicago & North Western, 325*
 Facing Type Superheater Locomotive; Lake Shore & Michigan Southern, 790*
 American Nut & Bolt Fastener Co.:
 Self-Locking Nut and Bolt Fastener, 1362*
 American Railway Accounting Officers' Association:
 Annual Meeting, 1038
 American Railway Association:
 Spring Meeting, 1160
 American Railway Engineering Association (See American Ry. Eng. & M. of W. Assoc.)
 American Railway Engineering & Maintenance of Way Association:
 Amendments to Constitution, 755
 Annual Convention, 447†, 536†
 Annual Dinner, 650c
 Committee on Records and Accounts, 975†
 Exhibit at Chicago Convention, 567
 New Name, 725†
 Payne, John Barton, 780†
 Proceedings, 585*, 631*, 728*
 Records of Side Tracks, 975†
 Report on Ballast, 631*
 Report on Brine Drippings, 581†, 598*
 Report on Buildings, 725†, 739*
 Report on Conservation of Natural Resources, 752
 Report on Electricity, 581†, 594*
 Report on Economics of Railway Location, 627†, 634, 727†
 Report on Grading and Inspection of Maintenance of Way Lumber, 751
 Report on Iron and Steel Structures, 582†, 606†, 658*
 Report on Masonry, 648
 Report on Manual and Current Practice, 627†, 628†, 725†, 897
 Report on Overloading of Piles, 613
 Report on Rail, 628†, 638*, 726†
 Report on Records and Accounts, 748*, 749*
 Report on Roadway, 725†, 743*
 Report on Rules and Organization, 588*
 Report on Signals and Interlocking, 581†, 591*
 Report on Signs, Fences and Crossings, 728*
 Report on Ties, 635
 Report on Track, 644*
 Report on Water Service, 728*
 Report on Wooden Bridges and Trestles, 581†, 603*
 Report on Wood Preservation, 737*
 Report on Yards and Terminals, 581†, 598*
 American Railway Master Mechanics' Association (See also Atlantic City Convention):
 Advance Copies of the Committee Reports, 1337†
 Annual Ball, 1475
 Card Party, 1509
 Consolidation with M. C. B. Association, 1627†, 1629*
 List of Exhibitors at Conventions, 1349
 Meeting Twenty Years Ago, 1337†
 Proceedings, 1369*, 1453*, 1489*
 Report on Contour of Tires, 1485†, 1493*
 Report on Design, Construction and Inspection of Locomotive Boilers, 1486†, 1490
 Report on the Diameter of Piston Rods, 1449†, 1457*
 Report on Flange Lubrication, 1485†, 1497*
 Report on Locomotive Frames, 1367†, 1378*
 Report on Lubrication of Locomotive Cylinders, 1450†, 1466*
 Report on Mechanical Stokers, 1365†, 1366†, 1372, 1449†
 Report on Main and Side Rods, 1449†, 1453*
 Report on Repair Equipment for Engine Houses, 1449†, 1460
 Report on Safety Appliances, 1489
 Report on Specifications for Tires, 1485†, 1496
 Report on Smoke Preventing Devices, 1365†, 1376*
 Report on Superheated Steam, 1450†, 1468*
 Report on Water Purification, 1450†, 1463*
 Special Train from Chicago, 1356
 Special Train from New York, 1357
 American Railway Steel Tie Co.:
 Steel Ties and Fastenings, 662
 American Railway Supply Co.:
 Locomotive Injector, 1700*
 American Rolling Mill Co.:
 American Ingot Iron Culverts, 664*
 Corrugated Culverts, 66
 Ingot Iron, 1615
 American Steel Foundries:
 Cast Steel Brake Beams, 1484
 Cast Steel Wheels for Heavy Service, 1089*
 Davis Cast Steel Wheels, 1396*
 New Steel Foundry, 1642*
 Simplex Couplers, 1625*
 Trucks, 1363*, 1589*
 Truck Bolsters, 1539*
 American Tobacco Co.:
 Ordered Dissolved, 1291
 American Tool Works Co.:
 High Duty Lathes, 444*
 American Valve & Meter Co.:
 Interlocking Switch Stand, 930*
 Andresson-Evans Co.:
 Grab Buckets, 621*
 Angle Bar (See Rail Joint)
 Ann Arbor:
 Gasoline Passenger Cars, 469
 Annual Reports (See Names of Companies; also Financial News)
 Apprentice (See Employee; also Education)
 Arbitration (See Employee)
 Arch (See Bridge)
 Arizona & New Mexico:
 Increase of Capital Stock, 303
 Arnspear Mfg. Co.:
 Signal Lamps, 619
 Ash Pan (See Locomotive Firebox)
 Asia Minor:
 Railways, 927
 Ashton Valve Co.:
 Protected Air Gage, 1393*
 Wheel Press Recording Gage, 1621*
 Atchison, Topeka & Santa Fe:
 Dismissals, 867
 Education of Apprentices, 51
 Mallet Locomotives, 351*
 Mallet Locomotive Rebuilt from Old Power, 278*
 Mallet Locomotive Converted from Two Decapods, 906*
 Telegraphers' Hours-of-Labor Law, 674†
 Traffic Agreement with the St. Louis & San Francisco, 1325
 Atlantic City Conventions:
 Annual Baseball Game, 1523*, 1592†
 Card Party, 1452
 Handling the Convention, 1485†
 Hotel and Exhibit Accommodations in Atlantic City, 1548†
 List of Exhibitors at Conventions, 1349
 M. C. B. Annual Ball, 1549, 1609
 M. M. Annual Ball, 1475
 Past Conventions, 1386*, 1506*, 1519*
 Proceedings, 1369*, 1386*, 1453*, 1489*, 1550*, 1593*, 1629*
 Special Train from Chicago, 1356
 Special Train from New York, 1357
 Track Exhibit at M. C. B. Convention, 1612
 Atlantic Coast Line:
 Accident at Alapaha, Ga., 802
 Allen Car Ventilator, 1268*
 Boiler Shop Tool Room Practice, 392
 Fined for Cutting Rates, 707
 Initial Carrier's Liability, 79
 Waycross Shops, 405*
 Atlas Preservative Co.:
 Water Softening Compound, 1230
 Weed Killing, 771*
 Auditing (See Accounting)
 Autogenous Welding (See Welding)
 Automatic Stops (See Safety Appliances)
 Automobile Runs:
 Truck Runs from New York to Philadelphia, 1075, 1122
 Automatic Stops (See Safety Devices)

B

Baggage:
 Extra Charge, 1181
 Uniform Baggage Rules in United States and Canada, 1079
 Baldwin Locomotive Works:
 Lignite-Burning Mikado Locomotive, 167*
 Locomotive Building During 1910, 993*
 Mallet Articulated Locomotive; Chicago Great Western, 495*
 Mallet Locomotives Built and Under Construction, 954
 Mallet Locomotives on the A. T. & S. F., 278*, 351*
 Mikado and Pacific Locomotives; Baltimore & Ohio, 1411*
 Reorganization, 1711*
 Walschaert Valve Gear, 1254*
 Ballast (See Maintenance of Way)
 Baltimore & Ohio:
 Block Signals, 148
 Fined for Violation of Sixteen-Hour Law, 910
 Garrett Shops, 864*
 Mallet Locomotives, 1346*
 Mikado & Pacific Locomotives, 1411*

Baltimore & Ohio (Continued):
Scherzer Rolling Lift Bridge, 666*
Settlement of Machinist Strike, 63
Yard at Chicago Junction, 1140†, 1145*

Barnum, M. K., 1628†

Bascule (See Bridge)

Bearings (See also Shop Kinks):
Creco Journal Box, 1641*
McCord Journal Box Lid, 1618*

Born Journal, 851*

Belt (See also Shop Kinks):
New Theory of Belt Driving, 27

Belt Lines:
Chicago & North Western, 354*

Berlin (See City and Belt Railroad)

Bessemer & Lake Erie:
Replacing Steel Viaducts, 1116*

Bettendorf Axle Co.:
All-Steel Box Car, 1589*
Bolsters, 1393*
Continuous Underframe, 1541*
Flat Car with Removable Sides and Ends, 1624*
One-Piece Cast Steel Truck Side Frames, 1482*
Steel Car Plant, 531*
Tank Car, 1513*
Underframes for Box Cars, 1640*

Bettom, J. M.:
Sand Blast Apparatus, 1281*

Bills of Lading:
Cotton Bill Suits; L. & N. and Southern Ry., 135

Blackall, Robert H.:
Ratchet Brake Lever, 882*

Block (See Signal, Block)

Block Signal and Train Control Board:
Annual Report, 117, 153†, 169
Inspection of Train Despatching, etc., 1161

Blue Print:
Pease Automatic Blue Print Machine, 577*
Pease Motor Driven Cutting and Trimming Table, 671*
Pease Standard Continuous Blue Prints, 623*
White Prints vs. Blue Prints, 770*

Boiler (See also Locomotive Boiler):
Furman Boilers, 1482*

Bolster (See Truck)

Bolt (See Rail Joint)

Boss Nut Co.:
Nut Lock, 1622*

Bossert, W. F., Mfg. Co.:
Nickerson Single-Lever Safety Switch Lock, 769*
Triplelock Switch Stand, 617*

Boston:
President Mellon on Opportunities of, 957

Boston & Albany:
Bridge Replacement, 1034*
Traffic Agreement with N. Y., N. H. & H., 889†, 976†, 1191†

Boston & Maine:
Dividend Reduction, 1140†
Hoosac Tunnel, 90

Boston Elevated:
Bonuses, 91

Brach, L. S., Supply Co.:
Arresters, 579*

Brake (See also Truck; also Hose; also Safety Appliances; also Shop Kinks; also Air Brake Association):
Adjustable Brake Head for High Speed Trains, 1542*
Block Signal and Train Control Board Report, 117
Brake Beam Supports, 1587*
Brake Hanger Angles, 397*
Breaking-in-Two of Freight Trains, 1414
Burdette Chainless Hand Brake, 438*
Controlling Modern Passenger Trains, 1316*
Cast Steel Brake Beams, 1484
Deflection of Brake Beams, 1619*
Feasible Drop Brake Staff, 1626*
J-M Brake Cylinder Packing Expander Ring, 1543
Leakage of Air Brake Equipment, 1592†
M. C. B. Report on Air Brake Equipment, 1548†, 1560*
M. C. B. Report on Test of Brake Shoes, 1567*
M. C. B. Report on Train Brake and Signal Equipment, 1591†
Ratchet Brake Lever, 882*

Snyder's Air Brake Indicator, 1002*

Bridge (See also Grade Separation):
Am. Ry. Eng. & M. of W. Assoc. Report on Wooden Bridges and Trestles, 581†, 603*
Am. Ry. Eng. & M. of W. Assoc. Report on Overloading of Piles, 613
Boston & Albany, Recent Work, 1034*
Eight-Track Rolling Lift Bridge, 577*
Foundation Work, 625*
Hudson River Bridge Studies, 292
Kentucky River High Bridge, 980*
McKinley Bridge, 670*
Mechanical Protection of Piles Against Marine Wood Borers, 612
Plate Girder Bascule Span, 778*
Preservation of Trestle Stringers and Caps, 1428*
Protection of Temporary Bridges Against Fire, 1173
Replacing Steel Viaducts on the Bessemer & Lake Erie, 1116*
St. Louis Municipal Bridge, 775*
Sacramento Bridge; Southern Pacific, 576*

Bridge (Continued):
Scherzer Rolling Lift Bridges, 574, 666*, 767*
Strauss Bascule Bridge, 622*, 578*
Simplex Span Bascule Bridge, 669*
Waterproofing Concrete Slab Bridge Floors, 768*
Western Maryland Extension, 316*

Brooklyn Rapid Transit:
Work of E. W. Winter, 190†

Browning Engineering Co.:
Railway Ditcher, 818*

Buffalo Brake Beam Co.:
Adjustable Brake Head for High Speed Trains, 1542*

Buffalo, Rochester & Eastern:
Hearing Before the New York Commission, 175

Buffalo, Rochester & Pittsburgh:
Gas-Electric Car, 1091*

Bullard Machine Tool Co.:
Maxi-Mill Vertical Turret Lathe, 1585
Vertical Turret Lathe, 1282*

Bureau of Railway Economics:
Increases of Earnings and Expenses of Eastern Railways for Five Months, 208

Bureau of Standards:
Emery Testing Machine, 1278

Bush, Lincoln:
Reinforced Concrete Bush Train Shed, 501*

Business Situation (See Finance)

C

Cable (See Wire)

California:
Demurrage Collections, 156
Railway Law, 324, 832

Call, D. W., 106

Cambria Steel Co.:
Hundred Per Cent. Rail Joint, 668*
Morrison Guard Rail, 769*
Reinforced Angle Bar, 620*

Canada:
Prosperity of Canadian Railways, 8, 702
Railway Development in Canada and the Western United States, 448†
Reciprocity as Affecting New England, 191†

Canadian Northern:
Revision of Rainy Like Line, 1431*

Canadian Pacific:
Grain Elevator, 384*
Machine Shops at Montreal, 835†, 839
Railway Development in Canada and the Western United States, 448†
Signals, 1139†
Steel Frame Box Cars, 455*

Canadian Railway Commission:
Express Rate Reduction, 55
Joint Traffic Commission with United States, 55

Canadian Reciprocity:
Effect on N. Y., N. H. & H., 779†

Canton Culvert Co.:
Corrugated Metal Culverts, 66

Capitalization (See Finance)

Car (See also Shop Kinks):
Adlake Washstand, 1540*
Apprentices in Car Department, 1627†
Armored Box Car, 1042*
Barber Roller Bearing Center Plate, 1588*
Basket Rack, 1588*
Bolster (See Truck)
Bulkhead, Galvanized Pressed Steel, 1511*
Cleaning (See Sanitation)
Clearance Car; Pennsylvania, 795*
Combined Platforms and Double Body Bolster, 1589*
Conveyor Car; Virginian Railway, 951*
Door (See Door)
Edison-Beach Storage Battery Car, 108
Express Cars for the D. L. & W., 1476*
Flat, with Removable Sides and Ends, Bettendorf, 1624*
Gasoline (See Motor Car)

Illinois Central Car Repair Frauds (See Illinois Central)

Inspection (See Motor Car)

Interchange (See Car Service)

Interior Finish, Galco, 1514*

Interior Steel Finish, Dahlstrom, 1543

Journal (See Bearings)

Ladder Lock, 818*

Lighting (See Lighting)

Mail Car Requirements, 468

Metal Car Specialties, 1511

Mine Rescue Car, 802

Motor (See Motor Car)

Pressed Unit Car Side Section, 1640

Prices for Labor and Material for Steel Cars, 1633*

Rail Motor (See Motor Car)

Rail Re-Laying Car, 1175*

Ralston Drop Bottom Gondola, 1614*

Refrigerator Car for Union Pacific, 1404*

Refrigerator Car Seals, 1617

Sarcos for Refrigerator Cars, 1642

Steel Box Car, Bettendorf, 1589*

Steel Car Plant, 531*

Steel Coaches for the D. L. & W., 1388*

Steel Frame Box Car; Canadian Pacific, 455*

Steel Hopper Coal Car; Norfolk & Western, 1656*

Steel Mail Car, 190†, 291

Steel Platforms and Buffering Mechanism, 1588

Steel Postal Cars for the Pennsylvania, 1574*

Car (Continued):
Steel Sleeping Cars for C. M. & St. P., 359*
Steel Underframe, Commonwealth, 1483*
Tank, Bettendorf, 1513*

Truck (See Truck)

Underframe, Bettendorf Continuous, 1541*

Underframes for Box Cars, Bettendorf, 1640*

Universal Car Seat, 1642

Wheel (See Wheel)

Window:
Doyle Metal Posts, 1545
Metal Weather Strip, 974*

Metallic Sash, 1585

National Curtain Fixtures, 1586

National Sash Lock, 1622

Sash Lock, 1622*

Universal Insulated Adjustable Copper Car Window Sash, 1582*

Universal Weather Stripping, 1540*

Car, Freight:
Canadian Pacific, 455*

Kennicott Tank Cars, 1020*

Norfolk & Western Steel Hopper Coal Car, 1656*

Side Dump Car, 1021*

Union Pacific Refrigerator Car, 1404*

Virginian Railway Conveyor Car, 951*

Car, Passenger:
Chi., Mil. & St. P. Steel Sleeping Car, 359*

Cleaning Passenger Equipment at Terminals, 40

D. L. & W. Steel Coach, 1388*

D. L. & W. Steel Express Car, 1476*

Oxy-Acetylene Welding for Steel Passenger Cars, 1055*

Car Service (See also Interstate Commerce Commission Rulings):
Car Routing on the New Haven, 834*

Car Surpluses and Shortages Bi-Weekly, 56*, etc.

Demurrage Collections in California, 156

Demurrage Regardless of Rain, 467

Efficiency of Railway Equipment, 822†, 935‡*, 978†, 1027‡, 1100†, 1156

Freight Car Balance and Performance Monthly, 138*, etc.

Interchange, 414

Interchange Bureau at the Union Stock Yards, 1337†

Mail, Pay for the Carriage of, 266†, 288

M. C. B. Report on Rules for Loading Material, 1593*

M. C. B. Report on Revision of Rules of Interchange, 1629

Repair Track and Its Relations to Traffic, 290

Safety Appliances (See Safety Appliances)

Traffic Clubs Bringing the Shipping Public and the Railways Together, 295

Carborundum Company:
Grinding Wheels, 1361
Vitrified Grinding Wheels, 530*

Carolina, Clinchfield & Ohio:
Coal Shipments, 1437

Car Shortage (See Car Service)

Casting (See Iron and Steel; also Shop Kinks)

Cement (See Concrete)

Census:
Development of New Hampshire Farms, 109†

Central of Georgia:
Macon Shop Kinks, 408*

Central of New Jersey:
Dynamite Explosion, 259, 1410
Elizabethport Shops, 403*

Central Pacific (See Southern Pacific)

Chambersburg Engineering Co.:
Steam Hammer, 1584*

Chesapeake & Ohio:
Block Signal Mileage, 65
Huntington, W. Va., Shops, 419*

Chicago:
Electrification of Railways, 702
Passenger Subways, 653*

Smoke Nuisance (See also Electrification), 321*, 375†, 385, 868

Chicago & Alton:
Fuel Tests, 1414
Track Elevation in Chicago, 631

Chicago & North Western:
Belt Lines at Chicago and Milwaukee, 354*
Chicago Passenger Terminal, 656*, 1311*

Efficiency Committees, 892†

Pacific Type Superheater Locomotive, 325*

Safety Committees, 349*, 910

Wafer Blow-Off Cock, 1065*

Waterproofing in Train Sheds, 663*

Chicago & Western Indiana:
Grade Separation at South Chicago, 758*

Track Elevation, 630*

Chicago Association of Commerce, 71†, 309†

Chicago Bridge & Iron Co.:
Steel Water Tanks, 626*

Eight-Track Rolling Lift Bridge, 577*

Fire Protection, 670*

Chicago, Burlington & Quincy:
Atlantic Locomotive, 41*

Collision near Indiana, Neb., 1322

Entrance into Southern Illinois Coal Fields, 900*

Relief Department, Report of, 1003

Repair Shops at Havelock, Neb., 33*

Through Service to South and Southeast, 135

GENERAL INDEX—Continued.

[Illustrated articles are indicated thus*; Editorials thus†; Letters to Editor thus‡.]

Chicago Maintenance of Way Convention (See also American Railway Engineering and Maintenance of Way Association): Proceedings, 539*, 585*, 631*, 728*

Chicago Great Western: Grade Revision and Terminal Work, 1108* Mallet Articulated Locomotive, 495*

Chicago, Indianapolis & Louisville: Fired for Overworking Operators, 1290

Chicago, Milwaukee & Puget Sound: Brooks Spark Arrester as Applied to Locomotives, 348*

Chicago, Milwaukee & St. Paul: Employees Laid Off, 423 Mallet Locomotives, 942* Mannheim (Chicago) Yard, 903* Retaining Wall, 826*

Steel Sleeping Car, 359*

Chicago Pneumatic Tool Co.: Air Compressor Used for Convention Exhibits, 1620 Boyer Rivet Buster, 1481 Franklin Gasoline-Driven Air Compressors, 672 Little Giant Drills, 1395*, 1513, 1541*

Little Giant Bus, 1585*

Chicago Railway Equipment Co.: Brake Beam Supports, 1587* Creco Journal Box, 1641* Deflection of Brake Beams, 1619*

Chicago, Rock Island & Pacific: Grade Separation at South Chicago, 758* Organization, 189† Prizes to Roadmasters, 819†, 830

Chicago, St. Paul, Minneapolis & Omaha: Engine House Kinks, 1057* Sioux City Shops, 863*

China: Shanghai-Nanking Railway, 1241* Chisolm & Moore Mfg. Co.: Cyclone Chain Hoist, 69*

Cincinnati, Hamilton & Dayton: New Yard at Toledo, 174

Cincinnati Milling Machine Co.: Helical Cutters for Milling, 1063*

Cincinnati, New Orleans & Texas Pacific: Kentucky River High Bridge, 980*

Claims: Initial Carrier's Liability, 79 Settlement of Freight Claims, 1302†

Clark Blow-Off System, 68*

Cleaning (See Sanitation)

Clements, Judson C., 116*

Cleveland, Cincinnati, Chicago & St. Louis: Annual Report, 679†, 721

Coal (See also Freight Rates; also Fuel) Anthracite Shipments in 1910, 94 Briquetting Plant, 1206* Fireproof Coaling Station, 625* Holmen Coaling Station, 776* Locomotive Coaling Chute, 1020* Locomotive Smoke in Chicago, 321*, 375†, 385 Steel Coaling Stations, 770* Washing Plants, 580*

Coal Car Distribution (See I. C. C. Rulings; also Car Service)

Colburn Machine Tool Co.: Motor Driven Boring Mill, 883*

College (See Names)

Collins Metallic Packing Co.: Wheel Flange Lubricator, 1362*

Colorado & Southern: Contract with Denver & Rio Grande, 362

Commerce Court (See also Interstate Commerce Commission): Opening, 335 Personnel, 303

Commission on Issuance of Railway Securities: Hearings at Chicago, 176, 248 Personnel, 149† Stock Dividends, 149†

Commonwealth Steel Co.: Cast Steel Tender Frame, 1393* Combined Platforms and Double Body Boster, 1589* Commonwealth-Flory Striking Plate and Carry Iron, 1512* Commonwealth Transom Draft Gear, 1538* Engine and Tender Trucks, 1364* Passenger Truck, 1626* Steel Underframe, 1483* Transom Draft Gear, 1538*

Compressed Air: Air Compressor Used for Convention Exhibits, 1620 Franklin Gasoline-Driven Air Compressors, 672

Concrete (See also Bridge): Am. Ry. Eng. & M. of W. Assoc. Report on Masonry, 648 Cement for High Temperature, 442* Concrete for Railway Work, 997 Cube Mixer, 579* D. & A. Cement Posts, 766 Dumping a Concrete Mixer, 1172* Effect of Electricity on Reinforced Concrete, 467 Mixer and Charging Elevator, 626* Mixer Lifting Attachment, 672*, 777

Concrete (Continued): Retaining Wall; Chicago, Milwaukee & St. Paul, 827* Waterproothing Concrete Slab Bridge Floors, 768*

Concrete Form & Engine Co.: Collapsible Steel Forms, 340* Velocipede Motor, 437*, 669*

Connecticut: Commerce Court, 189† Consolidated Car Heating Co.: Coupler with Positive Lock, 1622* Resistance Tube, 1361*

Construction, New (See also Subway): Am. Ry. Eng. & M. of W. Assoc. Report on Economics of Railway Location, 627†, 634, 727† Baton Rouge Cut-Off; Southern Pacific, 345* Canadian Northern, 1431* Chicago & Alton Track Elevation in Chicago, 631 Chicago & Western Indiana Track Elevation, 630* Chicago Great Western Grade Revision and Terminal Work, 1108* C., B. & Q. Entrance into Southern Illinois Coal Fields, 900* Denver, Northwestern & Pacific Location Work; Gore's Canyon, 287* Madeira-Mamore Railway, 1684* Mileage of the World, 1300† Oregon Trunk, 766 San Pedro, Los Angeles & Salt Lake, Rebuilding, 937* Shanghai-Nanking Railway, 1241* Track Elevation at Ninety-fifth Street and South Chicago Avenue, South Chicago, 758* Track Elevation in Chicago, 584 Western Maryland Cumberland-Connellsville Line, 270*, 316*

Control (See Finance, also Government Regulation of Railways)

Controllers: Westinghouse Controllers for Shop Use, 1621*

Conventions (See Names of Associations)

Conveying Machinery (See Hoisting and Conveying) Cooling (See Refrigeration) Copper River & Northwestern, 513 Correspondence (See Mail) Corrosion (See Iron and Steel) Cost (See Business Situation) Cotton Bills of Lading (See Bills of Lading) Coupler (See Draft Gear) Coupling (See Hose) Crane (See Hoisting and Conveying) Crane Company: Valves, 662 Valves and Power Plant Fittings, 573 Credit (See Finance) Creosote (See Ties and Timber) Crossing (See Grade Crossing) Crop Condition, 472, 919, 1125, 1326, 1437 Culvert (See also Maintenance of Way; also Bridge): American Ingot Iron Culverts, 664* Collapsible Steel Forms, 340* Corrugated Metal, 66

Cumberland Valley: Automatic Block Signals, 930

Cylinder (See Locomotive Cylinder)

D

Dahlstrom Metallic Door Co.: Steel Interior Car Work, 1543

Damages (See Claims)

Delaware & Hudson: Annual Report, 823†, 886 New York to Chicago Rates, 1234†

Delaware, Lackawanna & Western: Annual Report, 488† Express Cars, 1476* Steel Coaches, 1388* Withdrawal from Immigrant Traffic Pool, 470

Demurrage (See Car Service)

Denver & Rio Grande: Contract with Colorado & Southern, 362

Denver, North Western & Pacific: Gore's Canyon, 287*

Derrick (See Hoisting & Conveying)

Detroit Lubricator Co.: Force Feed Lubricator, 1362* Locomotive Lubricator, 1483* Transfer Table, 1393

Detroit Steel Products Co.: Ferestra, 621*, 668, 765* Steel Windows, 574

Window Sash, 264*

Dickinson, Paul, Inc.: Smoke Jacks for Concrete Engine House, 1021*

Dilworth, Porter & Co.: Goldie Tie Plates and Spikes, 771*

Door: Allith Hardware Door Equipment, 765 Forsyth One-Piece Metal Doors, 1624

Door (Continued): Vestibule Diaphragms and Curtain Fixtures, 1539* Vestibule Trap, 148*, 1319 Williams All-Service Car Door, 1619*

Drawbridge (See Bridge)

Draft Gear: Duplex Uncoupler and Automatic Release, 339* Extension Shank for Sharon Coupler, 1617 Freight Couplers, 1538* M. C. B. Coupler, 1515† M. C. B. Report on Couplers and Draft Equipment, 1591†, 1594* Simplex Couplers, 1625* Striking Plate and Carry Iron, Commonwealth-Flory, 1512*

Drill (See Machine Tools)

Drop Pit: Driving Wheel Drop Pit, 852*

Drouve, G. Co.: Anti-Pluvius Skylights, 775*

Dudgeon, Richard: Hydraulic Rail Bender, 774*

Dunley Manufacturing Co.: Rockford Gasoline Motor Car, 580

E

Earnings (See also Names of Companies): Increases of Earnings and Expenses of Eastern Railways for Five Months, 208 Revenues and Expenses of Railways as Reported to I. C. C. Weekly, 57, etc. Total January Earnings and Expenses, 871 Waste in Through Passenger Service, 2†

Economy Separable Switch Point Co.: Adjustable Head Rod, 575* Economy Claw Bar, 667* Economy Foot Guard, 778*

Separable Switch Point, 620*

Education (See also Names of Schools, Colleges and Universities): Apprentice Instructors' Conference; New York Central Lines, 209†, 233 Apprentices in Car Department, 1627† Apprenticeship Questions on N. Y. C. & H. R., 1062* Apprentice School at Altoona, 854 Apprentice School of Cincinnati, 27 Apprentices on the Santa Fe, 51 Apprentice System in the Store Department, 1247 College Men and Railway Work, 1644† Efficiency Engineer, 836† Educational Bureau of the Union Pacific, 1415†, 1424, 1430 Fraudulent Correspondence Schools, 868 Improving and Making Mechanics, 1054 Instruction of Workmen and Apprentices, 1048, 1073 M. M. Association Code of Apprenticeship Rules, 1365† Mechanical Engineering Course at Pennsylvania State College, 911 Opportunity in a Railway Shop, 1058 Relation of Education to Industrial Waste, 1070 Technical Education for Designers, 402

Edwards, O. M., Co.: Vestibule Trap Door, 148*, 1319*

Efficiency Methods (See also Freight Rate Increases; also Shops): Belting Records, 1046* Chicago & North Western, 892† Comparing the Efficiency of Railway Shops, 1249†, 1252 Discussed at the Conventions, 1515† Effect of Improved Organization on Output of Shops, 17†, 30 Efficiency Engineer, 836† Elliott, Howard, on, 703 Exhortation to Efficiency, 911 Instruction of Workmen and Apprentices, 1073 Letters from an Old Railway Official to His Son, 1191†, 1194, 1238, 1318, 1408, 1646, 1691 Lost Motion, 31 Maintenance of Equipment Costs, 1303* Mistakes of Efficiency Men, 29, 230, 265†, 344†, 387, 391, 849, 1059 Motor Cars, 1163† Organization, 1037 Output of Locomotive Repair Shop Increased, 17†, 30, 243* Piece Work Notes, 402 Practical Ethics, 1043†, 1051 Prizes to Roadmasters, 819†, 830 Railway as a Manufacturer, 1205 Relation of Education to Industrial Waste, 1070 Scientific Management, 18†, 29, 210†, 212†, 213†, 230, 265†, 268†, 307†, 210†, 344†, 387†, 391, 782†, 835†, 839, 1028*, 1249†, 1366† Success of the Employees' Brotherhoods, 780† Tabor Manufacturing Company Taylor System, 1249†, 1272

Efficiency Methods (*Continued*):
 Time Studies, 387†, 396*, 835†, 839
 Track Supervision, 1417
 Trumbull, Frank, on, 803

Electric Railways (See Electrified Steam Railways)

Electric Traction (See Locomotive, Electric)

Electricity:
 Am. Ry. Eng. & M. of W. Assoc. Report on Electricity, 581†, 594*

Electrification of Steam Roads:
 Compulsory, 1664
 Electric v. Steam Locomotives, 907*

Electrical Night of the New York Railroad Club, 689

Locomotive Smoke in Chicago, 321*, 375†, 385

Terminal Electrification, 582†, 584

Electric Controller & Mfg. Co.:
 Magnetic Switch for Motor Control, 884*

Elevator:
 Grain Elevator; Canadian Pacific, 384*

Embankment (See Maintenance of Way)

Emmett Mfg. Co.:
 Quick Clamping Wood Vise, 441*

Employee (See also Legislation; also Education; also Officer; also Track Kinks):
 Age Limits, 2†
 Apprentices and Workmen, Instruction of, 835†, 1048, 1257
 Arbitration of Labor Disputes, 820†, 825†, 834†, 878†, 1096†, 1098†, 1099†, 1153, 1231†, 1235†, 1302†
 Benefits, 868
 Broadening Maintenance of Way Employees, 1415†, 1418
 Brown's Discipline on the Illinois Central, 1411
 Chicago, Milwaukee & St. Paul Dismissals, 423
 Comparing the Efficiency of Railway Shops, 1249†, 1252
 Compensation for Industrial Accidents, 1699
 Contact with Superintendent, 1302‡
 Difficulty in Getting Time Off, 802
 Discharge without Hearing, 1435
 Duty of Station Agent Regarding Public, 11
 Education Bureau of the Union Pacific, 1415†, 1424, 1430
 Efficiency Committees, 892†
 Employer's Liability, 366, 474, 1663, 1699
 Full Crew Law in Arkansas, 429
 Full Crew Law in Pennsylvania, 1701
 Future of the Railway Wage Earner, 489†
 Hours of Service:
 California Law, 1076
 Chicago & Alton, 801
 Mail Clerks, 362
 Missouri, Kansas & Texas, 801
 Pennsylvania, 801
 Southern Pacific, 801
 Telegraphers' Hours-of-Labor Law, 674†
 Hours-of-Service Law, 1119
 Ideas Paid for on Pennsylvania, 1121
 Improving and Making Mechanics, 1054
 Inventory of Labor, 1193†, 1645†, 1681‡
 King Edward VII Memorial Fund, 867
 Labor Unions:
 Efficiency of, 313†, 780†
 Mail Clerk Organization, 423
 Letters from an Old Railway Official to His Son, 1191†, 1194, 1238, 1318, 1408, 1646, 1691
 Mistakes of the Efficiency Men, 29, 230, 265†, 344‡, 387, 391, 849, 1059
 Money Loaned, 868
 Passes on Baltimore & Ohio, 468
 Pensions:
 Pennsylvania, R. R., 511
 Piece Work Notes, 402
 Prevention of Accidents in Shops, 416*

Prizes to Roadmasters, 819†, 830

Safety Committees on the Chicago & North Western, 349*, 910

Saving in Labor by Use of Section Motor Cars, 1165, 1427

Strike:
 Baldwin Locomotive Works, 1435
 Baltimore & Ohio, 63, 1076, 1120
 Chicago & Western Indiana, 1076
 Chicago Junction, 1076
 Chicago, Milwaukee & St. Paul, 1076
 Cincinnati, New Orleans & Texas Pacific, 511
 Express Drivers, 511
 Illinois Central, 1076
 Indiana Harbor Belt, 1076
 New York Central, 362
 Pennsylvania, 423, 1076, 1663
 Portugal, 107
 Queen & Crescent, 703, 803
 Sonora Railway, 511
 Southern Pacific of Mexico, 511
 Supply of Section Foremen, 1416†

Recent Immigrant in Railway Work, 1201

Wages:
 Inconsistencies in Payrolls, 1024†, 1400†
 Wage Increase:
 Canadian Northern, 1075
 Canadian Pacific, 468, 1075
 Denver & Rio Grande, 1003
 Grand Trunk Pacific, 107
 Gulf, Colorado & Santa Fe, 867
 Illinois Central, 867
 Intercolonial, 701
 Lehigh Valley, 90, 468, 801
 Lehigh Valley Transit Co., 1320

Employee (Continued):
 Spokane, Portland & Seattle, 801
 Section and Extra Gang Foremen, 975
 Southern Railway, 1285, 1320
 Wabash, 469
 Western Lines, Conductors and Trainmen, 54
 Western Pacific, 1178
 Work from Men and Machines, 245

Engine (See Locomotive; also Locomotive, Electric)

Engineering and Maintenance of Way Association (See Am. Ry. Eng. and Maintenance of Way Association)

Engine House (See Shops)

England:
 Accident Record, 1436
 Freight in Small Packages, 912
 Omnibus Operation in London, 1436
 Passenger Service, 913

English and American Railway Statistics, 918

Equipment (See Car Service; also Locomotive Service)

Erdman Act:
 Arbitration of Labor Disputes, 820†, 825‡, 934†, 979‡, 1096†, 1098†, 1099†, 1153, 1231†, 1235†, 1302‡

Erie Railroad:
 Engine House Kinks, 1049*
 Entrance into Pittsburgh, 779†
 Fined \$200 for Two Violations of the Safety Appliance Law, 1708
 Harrington Automatic Train Stop, 1039*, 1161
 New York to Chicago Rates, 1234†
 Susquehanna Shop Kinks, 406*

Exhibits (See Atlantic City and Chicago Conventions; also Names and Subjects)

Explosives Bureau:
 Colonel Dunn, Chief Inspector, 1285 Report, 911

Exposition (See Names and Subjects)

Express (See Names of Companies; also Earnings; also Interstate Commerce Commission Rulings)

Express Companies:
 Mistakes, 1300†
 Relations with the Public, 1097†
 Statistics for Year, 207

F

Fairbanks, Morse & Co.:
 Gas Engine and Generator Outfit, 578*
 Gasoline Inspection Car, 1514*
 Jacks, 776*, 1640*
 Motor Car, 441*, 623*
 Motor Inspection Cars, 1538*
 Oil Engine for Feed Water Pump, 1394*
 Standpipe, 1625*
 Water Station Apparatus, 671*

Fare (See Passenger Rates)

Farm:
 Increase in New England, 109†

Fast Trains and Runs:
 Altoona to Philadelphia, 423
 Depew, N. Y., to Lancaster, 1003
 Fast Schedules, 1004
 Philadelphia to Jersey City, 910
 Syracuse to Buffalo, 910
 Washington to New York, 174
 Yuma, Ariz., to New York, 363

Finance (See also Accounting; also Commission on the Issuance of Railway Securities)
 Capitalization, 121, 198
 Change in the Standard of Investment Rate, 1095†
 Compulsion of Exchange of Securities, 1397†
 Course of Railway Security Prices, 695*
 Distrust of Bonds, 890†
 Efficiency of Public Service Railways, 1028*
 Forms of New Financing, 1398†
 Genealogy of N. Y., N. H. & H., 356*
 Institutional Investment, 343†
 Issue of Stock Below Par, 1309
 Popularizing Security Issues, 1192†
 Types of the Railway Stockholder, 72†

Fire:
 Brooks Spark Arrester, 348*
 Lightning Arrester, 777*
 Protection of Temporary Bridges Against Fire, 1173

Firebox (See Locomotive Firebox)

Fitz-Hugh Luther Co.:
 Side Dump Car, 1021*

Fixing Pencil Lines, 232

Flange (See Wheel)

Flannery Bolt Co.:
 Tate Flexible Staybolts, 1481

Floor:
 Composition Flooring for Wood and Steel Floors, 1230*

Foreign and American Railway Figures, 1703

Forest Preservation (See Fire)

Forsyth Bros. Co.:
 Doyle Metal Posts, 1545
 Metal Car Specialties, 1511
 Metallic Sash, 1585
 One-Piece Metal Doors, 1624
 Pressed Unit Car Side Section, 1640

Fort Smith & Western:
 Fined for Violation of Shelter Law, 1080

Foundry (See Shops)

Flood (See Maintenance of Way; also Construction, New)

Freight (See American Association of Local Freight Agents' Association; also Car Service):
 Mechanical Handling of Freight, 1643†, 1647*

Freight Claims (See Claims)

Freight Rates (See also Freight Rate Reductions; also Freight Rate Increases; also Interstate Commerce Commission Rulings; also State Commission Rulings):
 Basis for Rate Regulation, 1024†
 Brokerage Companies, 308†
 Cost of Rails and Water Transportation, 1236, 1678†, 1682†
 Distance and Freight Rates, 1402
 Rate Making in the South, 787
 Reasonable Rates, 307†, 314‡
 Single Line and Double Line Rates, 487†
 Studies in Railway Economics (See Freight Rate Increases)
 Water Competition Between Atlantic and Pacific, 872

Freight Rate Increase (See also Efficiency Methods; also Interstate Commerce Commission Rulings; also State Commission Rulings):
 Atlantic Seaboard to Colorado, 329
 Commercial Organizations, Attitude Towards, 71†
 Dean Raymond on Railway Rates and Profits, 154

Eastern Case, 897

Eastern Hearings, 94, 138, 149†, 158*, 376†, 378, 897

Efficiency Methods and Rates, 18†, 210†, 212†, 213†, 268‡, 307†, 310‡, 782‡, 835‡, 839

Illinois Manufacturers' Association and Western Rate Hearings, 4‡

One of the Commission's Arguments, 490‡, 781†

Panama Railroad, 513

Present as a Period of Transition, 780†

Railway Situation, 289

Reflections on the Rate Case Decisions, 464

Studies in Railway Economics, 1†, 10, 75, 114, 155, 200, 1143, 1195, 1245, 1315

Testimony of Interstate Commerce Commission in Book Form, 53

Western Case, 820†, 832, 897

Western Hearings, 94, 139, 145, 149†, 158*, 376†, 381

Freight Rate Reductions (See also Interstate Commerce Commission Rulings; also State Commission Rulings):
 Denver & Rio Grande, 1703
 I. C. C. Authority to Suspend, 1398†
 In the Southwest, 429
 New York to Chicago, 1217, 1234†, 1288
 Northern Pacific, 107
 Western Hearings, 805
 Western Pacific Coal, 135

Freight Service:
 Car Capacity and Freight Rates, 1696
 Efficiency of Public Service Railways, 1028*

Freight Traffic (See Traffic)

Freight Yards (See Yards and Terminals)

Fuel (See also International Ry. Fuel Assoc.; also Coal):
 Gas Production in Pennsylvania, 1179
 Lignite for Locomotives, 150†
 Mine-Run Coal for Locomotives, 1338†
 Oil Fuel for Locomotives, 1451†
 Oil Furnace in Smith Shop and Forge, 1575
 Superheater and Non-Superheater Locomotive Consumption, 1414

Furnace:
 Ferguson Furnaces for Steel Car Repairs, 1546*
 Ferguson Spring and Case Hardening Furnace, 1364*
 Frankfort, 263*

G

Gage:
 Protected Air Gage, 1393*
 Recording Meter for Measuring Steam Flow, 1543, 1137*
 Wheel Press Recording Gage, 1621*

Gaskets:
 Goetze, 67*

General Electric Co.:
 Annual Report, 976
 Curtis Turbo-Generator, 67*, 1395
 Gas-Electric Generating Set, 1514*
 Gas-Electric Car, 1091*
 Gasoline Electric Motor Car, 1623
 Low-Pressure Turbine, 439*
 Portable Air Compressor, 1641*
 Recording and Indicating Flow Meters, 1137*, 1543

General Railway Supply Co.:
 Composition Flooring for Wood and Steel Floors, 1230*
 Insulation for Steel Passenger and Refrigerator Cars, 974*

Germany:
 Electrification of Railways, 290
 Safety Appliances, 89

Gold Car Heating & Lighting Co.:
 Cyclone Ventilator, 1392
 Hose Coupling, 438*

Goodman Car Co.:
 Mott Sand Blast Apparatus, 442*

GENERAL INDEX—Continued.

[Illustrated articles are indicated thus*; Editorials thus†; Letters to Editor thus‡.]

Government Ownership of Railways:
 Nationalization of Railways, 497

Government Regulation (See also Commission for the Issuance of Securities):
 Government Regulation (See also Interstate Commerce Commission; also State Ry. Commissions)
 Basis for Rate Regulation, 1024†
 Committee on Relations of Railway Operation to Legislation, 151†
 Control of Public Service Corporations, 506
 Effect on Security Prices, 890†
 Elliott, Howard, on, 291
 Governor Wilson's Views, 133
 Idaho State Railway Commission, 375†
 Letters from an Old Railway Official to His Son, 1191†, 1194, 1238, 1318, 1408, 1646, 1691
 Local Regulation, 1142†
 Panama Railroad, 513
 Present as a Period of Transition, 780†
 Railway Mechanical Affairs, 1486†, 1490
 Rates, Profits and Wages, 307†, 314‡
 Studies in Railway Economics, 1†, 10, 75, 114, 155, 200, 1143, 1195, 1245, 1315

Grade Crossings:
 New York City, 109†, 120

Grade Revision (See Construction, New)

Grade Separation:
 At South Chicago, 758*

Track Elevation in Chicago, 584

Grain (See Top Conditions; also Freight Rates; also Interstate Commerce Commission Rulings; also State Commission Rulings)

Grand Trunk:
 Competition with the N. Y., N. H. & H., 341†, 1023†
 Signals, 1139†

Grand Trunk Pacific:
 New Construction, 802

Great Britain (See England; also Names of Railways)

Great Northern:
 Concrete Snow Shed, 82*

Greene, Tweed & Co.:
 Palmetto Packing, 1512*

Griffin Wheel Co.:
 Standardization of Chilled Iron Car Wheels, 211†, 239*

Grinding (See Machine Tools; also Shop Kinks)

Grip Nut Co.:
 Bolt Lock for Ladders on Freight Cars, 818*

Gulf, Colorado & Santa Fe:
 Condition of Treated Ties on, 999*

H

Hadley Commission (See Commission on Issuance of Railway Securities)

Hand Tools:
 Selection and Maintenance, 49

Harriman Lines (See Separate Companies):
 Hart Steel Co.:
 Tin Plates, 573

Hauke Manufacturing Co.:
 Oil Fuel Burners, 340*

Havana Terminal Railroad:
 Passenger Station, 383*

Hayes Track Appliance Co.:
 Derails, 765

Headlight (See also Lighting):
 Block Signal and Train Control Report, 117
 Electric, Georgia, 140
 Indiana Headlight Law, 327
 Powers of Headlights, 1485†, 1502

Heating:
 Athenian Wall Radiation, 1541*
 Car Radiators, 1625
 Radiators for Station Heating, 1512

Tank Heaters, 1588*

Heywood Brothers & Wakefield Co.:
 Universal Car Seat, 1642

Highway Crossing (See Grade Crossing):
 History (See also Subjects and Names):
 Antique Railway Rules and Regulations, 1578

Hobart-Allfree Co.:
 Cylinders and Valve Gears, 1618

Hoisting and Conveying (See also Shop Kinks):
 Browning Railway Ditcher, 818*
 Cyclone Chain Hoist, 69*

Locomotive Yard Cranes, 1250†
 Sewall's Point Terminal; Virginian Railway, 951*

Testing Machine at Bureau of Standards, 1278

Thirty-Ton Hoisting Crane, 530*

Hose (See also Shop Kinks):
 Armored Air Brake Hose, 1623*
 Gold Wire Wound Steam Hose, 438*
 High Pressure Hose, 1482

Leakage of Air Brake Equipment, 1592†
 M. C. B. Report on Train Pipe and Connections for Steam Heat, 1636*

New Consolidated Coupler with Positive Lock, 1622*

Reliable Shop Hose, 1587

Wood's Hose Protector and Preservatives, 1543*

Hostility (See Public, The Railways' Relations with)

Hours of Labor (See Employee)

Housatonic:
 History, 800

Hudson & Manhattan:
 Trains to Newark, 1285

Hydraulic (See Shop Kinks)

I

Illinois:
 Forbes, John M., in, 797
 Passes, 149†

Illinois Central:
 Leighton Cylinder Packing Ring, 1057*
 Train Accident Record, 673†, 820†, 1411

Illinois Manufacturers' Association (See also Freight Rate Increases):
 Misrepresentation, 4‡
 Rate Hearings, 154

India:
 Railways, 799

Indiana:
 Block Signal System Throughout the State, 448†
 Laws of 1911, £29, 889†
 Law Preventing Collisions by Statute, 192†, 309†

Indianapolis Switch & Frog Co.:
 Manganese Frog Crossings, 973*
 Manganese Products, 765*

Injunction (See Legal Decisions)

Inspection Car (See Motor Car)

Insulation (See Refrigeration)

Interborough Rapid Transit Co.:
 Attitude Towards Criticism, 73‡

Interchange (See Car Service)

Interlocking (See Signals, Interlocking)

International & Great Northern:
 Employee Awarded Damages, 1663
 Reorganization Plan, 1141†

International Master Boiler Makers' Association:
 Annual Convention, 1261

International Oxygen Co.:
 Oxy-Acetylene Welding and Cutting, 1615*

International Railway Congress:
 History, 177

International Railway Fuel Association:
 Annual Convention, 1149, 1208

International Railway General Foremen's Association:
 Application Blanks, 20‡

Interstate Commerce Commission (See also Interstate Commerce Rulings; also Accounting; also Freight Rates Increases; also Commission to Regulate the Issuance of Railway Securities):
 Accident Bulletin No. 37, 265†, 282*
 Annual Report, 7
 Authority to Suspend a Reduction in Rates, 1234†, 1398†
 Bulletin Showing Block Signal Mileage January 1, 945*

Freight Rate Increase Testimony in Book Form, 53

Increasing Tariff Expenses, 933†

Joint Traffic Commission with Canada, 55

Jurisdiction of Railways and Other Carriers in Alaska, 1220

Local Regulation, 1142†

Long and Short Haul Clause Hearing, 918

Operating Statistics, 149†, 158*

Partiality, 820†, 822

Passenger Tariffs, 472

Statistics of Express Companies, 207

Tariffs, 873

Interstate Commerce Commission Rulings:
 Ashland, Wis., No Discrimination Against, 58

Bee Rates into a Prohibition State, 1128

Cement Advanced Rates Refused, 1080

Cement Rates Reduced, 1442

Coal Car Distribution, 98

Coal Rates on Carolina, Clinchfield & Ohio, 1181

Coal Rates Reduced, 1128

Connection with Competing Electric Line Ordered, 873

Correct Method of Weighing, 58

Cotton Seed Rates, 96, 98

Cream Rates Reduced, 296

Dating Bills of Lading, 1128

Definition of "Completely K. D.", 1128

Delay of Coal Shipments, 95

Differences in Pepper Rates, 58

Discrimination in Favor of Nashville, 1705

Discrimination Against Fremont, 1667

Empty Beer Kegs, Minimum, 58

Exception to Cheapest Route Ruling, 472

Exceptions to Long and Short Haul Rule, 1439

Express Rate on Sample Brick Reduced, 1012

Express Rates to England Reduced, 470

Express Rates Reduced, 1442

Failure to Show Damage, 963

Fares on Electric Line Reduced, 705

Faulty Loading, 429

Interstate Commerce Commission Rulings (Continued):
 Fertilizer Rates Reduced, 1012

Fire Liability, 98

Freedom of Contract Restricted, 427

Freight Rate Decisions, 376†, 378, 381

Grain Rates Advanced, 1290

Grain Rates Left Undisturbed, 964

Horses, Rates on, Reduced, 1012

Ice Rate Annulled, 1139†

Ignorance of Best Routes, 364

Indictments for Unlawful Overcharge, 178

Initial Carrier Held Responsible, 1012

Kanite Rates Reduced, 1442

Live Stock, Advanced Rates Permitted, 1705

Locomotives and Tenders, Rates, 1667

Long and Short Haul Rules, 705

Lard Substitute Rate, 429

Lumber Rates Reduced, 296

Lumber Rates Sanctioned, 1012

Malt Rates Reduced, 1705

Meat Cut Not Suspended, 1326

Milling-in-Transit Privilege Not Sustained, 1668

Minimum Car Load Rule, 178

Missouri River Case Does Not Cover Commodity Rate, 427

No Penalty for Poor Marking, 332

Not Misrouted if Routing Instructions Are Followed, 429

Over-Capitalization Cause for Rate Reduction, 673†

Ownership of Shipment Not Affecting Rates, 1219

Plate Glass Rate Reduced, 1707

Pre-Cooling Storage Rates Reduced, 372

Private Railway a Plant Facility, 807

Private Servants, 252

Public Property of Railways to a Certain Extent Private, 809

Rate Cannot Be Varied According to Use to Which Article Is Put, 809

Rate Reduced to Meet Competition, 427

Refund Allowed on Lost Commutation Ticket, 963

Refusal to Order Through Rate, 296

Rice Rates Not to Be Advanced, 1667

Rome, Miss., Discrimination Against, 58

Rules to Avoid Damage Claims, 919

Sash Weight Reduced, 518

Saturday Afternoon Free Time, 1219

South Western Rate Decision, 429

Specific Rate for a Specific Consignee, 58

Sugar Lighterage Question at New York Settled, 472

Switch Connection Ordered, 1705

Telephone Rates, Regulation of, 1181

Texas Common Points Rates Upheld, 919

Ties Are Lumber, 254

Ton-Mile Rate on Short Roads, 140

Tin-Plate Scrap Rate Reduced, 1707

Transshipment Decision, 1707

Use of Alternative Rates Permissive, Not Compulsory, 1707

Iron and Steel (See also Rail; also Wheel; also Welding; also Shops; also Shop Kinks):
 Am. Ry. Eng. & M. of W. Assoc. Report on Iron and Steel Structures, 582†, 606*, 658*

Corrosion and Protection, 1025†

Elongation and Ductility Tests of Rails for New York Central Lines, 653

Exports in 1910, 133

Ferestra, 621*, 668, 765*

High Speed Tool Steel, 264*

Impact Tests, 582†, 606*, 658*

Nickel and Chrome Alloys for Chilled Iron Car Wheels, 268

Oxy-Acetylene Welds in Steel, 837†, 847

Steel Corporation's Share in Total Output, 469

Zinc End on Washout Plug, 1258*

Italy:
 Three-Phase Electric Locomotives, 957

J

Jack (See Shop Kinks)

Jessop, Wm., & Sons:
 High Speed Tool Steel, 264*

Johns-Manville, H. W., Co.:
 Cement for High Temperature, 442*

J-M Air Brake Cylinder Packing Expander Ring, 1543

Jones Positive Nut Lock Co.:
 Positive Nut Lock, 1361*

Journal (See Bearings)

K

Kalamazoo Railway Supply Co.:
 Motor Car, 620*, 668*

Kansas:
 "Single Line" and "Double Line" Rates, 487†

Kansas City, Mexico & Orient:
 Repair Shops and Locomotive Terminal, 1269*

Kennicott Co.:
Ballast Spreader, 670*
Tank Cars, 1020*
Water Tanks, 767*
Water Weigher, 622*
Kinnear Mfg. Co.:
Glazing Bar for Skylights, 338*
Kowie Railway:
Accident at Blaauwkrantz, 1004

L

Labor (See Employee)
Ladder:
Simplex Freight Car Ladder, 1248*

Lake Shore & Michigan Southern:
Annual Report, 677†, 719
Grade Separation at South Chicago, 758*
La Salle Street Station Train Shed Roof,
566*
Pacific Type Superheater Locomotive, 790*
Power Plant for Passenger Car Yard, 716*
Shop Kinks, 1279*
Traffic Agreement with the Erie, 779†

Lamb Electric Co.:
Portable Electric Radial Drill, 884*

Lamp (See Lighting)
Lancashire & Yorkshire:
Wheel Drop, 852*

Legal Decisions (See also Interstate Commerce Commission Rulings; also State Commission Rulings; also Legislation; also Passenger Rates; also Freight Rates; also Subjects):
Age Limits, 2†

Arkansas Rates Sustained, 1080

Baggage Liability, 1328

Baggage Responsibility, 519

Bonds Not Void, 1013

Carmack Amendment, 59

Carrier Must Accept Shipment Even if it is in Another's Car, 966

Charge for Switching Freight, 1290

Chesapeake & Ohio May Vote on Its Stock in the Hocking Valley, 1669

Chicago, Indianapolis & Louisville Fined for Overworking Operators, 1290

Coal Rates Must be Restored, 1080

Commodities Clause, 819†, 875

Corporation Income Tax Law, 487†

Drivers Engaged in Interstate Commerce Cannot Be Required to Submit to a City Ordinance Requiring Them to Be Licensed, 1669

Employers' Liability Acts Changed, 873

Employee May Sue for Injury After Receiving Benefits, 366

Erie Fined for Violations of Safety Appliance Law, 1708

Fines for Misbilling, 1708

Fines for Rebating, 520, 1182

Fines for Violation of Demurrage Law, 1442

Fort Smith & Western Fined for Violation of Shelter Law, 1080

Fraudulent Use of Mails, 1291

Full Crew Regulation Not an Obstruction to Interstate Commerce, 366

Galveston Terminal Case, 519

Health and Public Service Commission, 180

Hours-of-Service Law Sustained, 1291

Imprisonment for Bill-of-Lading Frauds, 966

Initial Carrier's Liability, 79

Initial Point of Transportation, 1290

Iowa Law Regulating Employees' Insurance Sustained, 474

Kansas Militia Must Pay Full Fare, 810

Life Passes Unlawful, 474

Louisiana & Northwest Fined for Not Improving Service, 1182

Merger of Union Pacific and Southern Pacific, 1678†

Mileage Coupons Must Be Exchanged for Tickets, 1129

Minnesota Rate Case, 891†, 921, 949, 987

National Guard Must Pay Full Fare, 518

Ohio Competing Roads Law, 1708

Oklahoma Commission Cannot Make Rates, 873

Passenger Fined for Using Another's Ticket, 707

Pennsylvania Fined for Demurrage Irregularities, 1182

Pennsylvania Loses to Coal Companies, 1328

Pipe Lines May Cross Highway and Convey Gas Out of State, 921

Pullman Fares Refunded, 1285

Pullman Seats Not Sold at Night, 1129

Railways in Oklahoma Must Have General Offices in that State, 810

Reorganization Plan of the Third Avenue R. R. Company Must Be Accepted, 1442

Safety Appliance Laws, 59, 1139†, 1182

"Single Line" and "Double Line" Rates, 487†

Southern Pacific Land Grants, 1013

Standard Oil Case, 1441†, 1148

Standard Oil Co. Fined, 99

State Rates have no Bearing on Interstate Rates, 518

Stock Transportation 28-Hour Law, 99, 707

Telegraph Messages Must Be Promptly Transmitted, 873

Legal Decisions (Continued):
Telegraphers' Hours-of-Labor Law, 674†
Texas & Pacific Fined for Collecting Illegal Rates, 297
Tickets and Advertising May Not Be Exchanged, 366, 475
Union Pacific-Southern Pacific Merger Upheld, 1708
Wabash Fined for not Improving Bridge, 1220

Legislation (See also Government Regulation; also Passenger Rate Reduction; also Frt. Rate Increases; also Frt. Rate Reduction; also Employee; also Car Service):
Boiler Inspection Legislation, 266†, 308†, 388†
California Laws, 832
Committee on Relations of Operation to Legislation, 1159
Commodities Clause, 819†
Corporation Income Tax Law, 487†
Eshleman Railway Bill, 324
Federal Boiler Inspection Rules, 1105
Headlight Law in Indiana, 327
Hours-of-Service Law, 1119
Indiana Laws, 829, 889†
Industrial Colony for Tramps, 1643†
Maine Laws, 906
Missouri's New Railway Laws, 805
M. C. B. Standards for Safety Appliances, 1547†
New York State Boiler Inspection Law, 342†
Oregon Laws, 1309
Psychology of Anti-Railway Legislation, 932†
Sherman Anti-Trust Law, 1139†
"Single Line" and "Double Line" Rates, 487†
Uniformity in Railway Legislation, 1366†

Lehigh Valley:
Fined for Violation of Demurrage Law, 1442
Willamette Valley Lumber Rate, 707
Withdrawal from Immigrant Traffic Pool, 871

Lighting:
Adlake Lamps, 1394*
Anti-Pluvius Skylights, 775*
Branch Arresters, 579*
Car Lighting, 1516†
Curtis System, 67*, 108, 1395
Detroit Fenestra, 264*, 621*, 668, 765*
Efficient Switch Lamps, 176
Gas-Electric Generating Set, 1514*
Gas Engine and Generator Outfit, 578*
Glazing Bar for Skylights, 338*
Incandescent Gas Lighting in Trains, 1586 Lamps, 619
Low-Pressure Turbine, 439*
M. C. B. Report on Train Lighting, 1634*
Opening and Closing Shop Windows, 1064*
Pintsch Gas as an Illuminant, 1677†
Pintsch Gas, Safety of, 1584
Railway Repair Shops, 837†
Steel Windows, 574

Livermore, Norman B., & Co.:
Locomotive Sander, 1138*

Local Freight Agents' Association (See American Association of Local Freight Agents Association)

Locomotive (See also Shop Kinks):
Ash Pan (See Locomotive Firebox)
Atlantic, Chicago, Rock Island & Pacific, 41*
Atlantic Type Class E-6 Locomotive; Pennsylvania R. R., 854*
Baker Locomotive Gear, 1481
Bearings (See Bearings)
Coal Passers on Locomotive Tenders, 1579*
Compound Comparison with Simple, 125
Crown Sheet Failures, 388†
Cylinder (See Locomotive Cylinder)
Four-Eight-Two for Natal Government Railway, 509*
Headlights (See Headlights, also Lighting)
Lignite-Burning Mikado Locomotive, 167*
Locomotive Building During 1910; Baldwin Locomotive Works, 993*
Locomotive Building in Europe, 399, 860*
Low Water Alarm, 1511
Mallet Articulated; Chicago Great Western, 495*
Mallet; Baltimore & Ohio, 1346*
Mallet; Chicago, Milwaukee & St. Paul, 942*
Mallet, Converted from Two Decapods; A. T. & S. F., 906*
Mallet Locomotive for Natal Government Railway, 509*
Mallet Locomotives Built and Under Construction, 954
Mallet Locomotives on the A. T. & S. F., 351*
Mallet, Rebuilt from Old Power, 278*
M. M. Report on Locomotive Frames, 1367†, 1378*
M. M. Report on Main and Side Rods, 1449†, 1453*
Mikado and Pacific; Balt. & Ohio, 1411*
Mikado Locomotives, 1045†
Mountain Type Locomotive, 1545
Oil Burning Mallets; Southern Pacific, 1476*
Pacific Type Locomotives; Lake Shore & Mich. Sou., 790*

Locomotive (Continued):
Pacific Type Locomotives; New York Central Lines, 785*
Pacific Type Locomotive; Pennsylvania Company, 462*
Pacific Type Superheater Locomotive; Chicago & North Western, 325*
Sander, 1138*
Screw Reverse Gear, 72†
Smoke (See Smoke Prevention)
Split Eccentric, 848*
Spring Balance for Locomotive Bell, 1073*
Superheated Steam in Locomotive Service, 357*
Superheated Steam on Mallet Locomotives, 1477, 1510
Superheater (See Superheater)
Tests of Mallets; Norfolk & Western, 1153*
Tests at Altoona, 125
Three-Phase Electric Locomotives in Italy, 957
Trucks (See Trucks)
Turbine Locomotives, 1399†
Valve (See Valve)
Valve Gear Stock, 1513
Water Softening Compound, 1230
Weights of Machinery, 389†

Locomotive Boiler (See also Machine Tools):
Accidents, 701, 1285
Boiler Inspection Bill, 293
Boiler Inspection Legislation, 266†, 308†, 388†
Bridges in Exhaust Nozzles, 73†*
Clark Blow-Off System, 68*
Charcoal Iron Tubes, 1363, 1512*
Federal Inspection Bill, 126
Federal Boiler Inspection Rules, 1105
Locomotive Injector, 1700*
Inspection, New York, 120
M. M. Report on Design, Construction and Inspection of, 1486†, 1490
New York State Boiler Inspection Law, 342†
Tube Test, 1544*
Wafer Blow-Off Cock, 1065*
Zinc End on Washout Plug, 1258*

Locomotive Cylinder:
Effect of High Temperatures on, 110†
Graphite Lubrication, 1273*
Hobart-Alfree Cylinders and Valve Gears, 1618
Leighton Cylinder Packing Ring, 1057*
M. M. Report on Diameter of Piston Rods, 1449†, 1457*
Stepped Cylinder for Baltic Locomotive, 246*

Locomotive, Electric (See also Electric Railways):
Pennsylvania R. R., 439*

Locomotive Firebox (See also Machine Tools; also Shop Kinks):
Brooks Spark Arrester, 348*
Mechanical Stoker Operation, 1192†
Mechanical Stokers, 1365†, 1366†, 1367†, 1372, 1449†
Street Locomotive Stoker, 1196*

Locomotive, Freight:
Atchison, Topeka & Santa Fe Mallet, 278†, 351, 906*
Baltimore & Ohio Mallet Locomotive, 1346*
Baltimore & Ohio Mikado Locomotive, 1411*
Chicago Great Western Mallet Locomotive, 495*
Chicago, Milwaukee & St. Paul Mallet Locomotive, 942*
Mikado Locomotives, 1045†
Natal Government Railway Mallet, 4-8-2 Type, 509*
Norfolk & Western Test of Mallets, 1153*
Oregon Railroad & Navigation Company, 167*
Southern Pacific Oil Burning Mallets, 1476*

Locomotive Performance (See also Fast Trains and Runs):
Large Locomotive Mileage, 216

Locomotive, Passenger:
Baltimore & Ohio Pacific Type Locomotive, 1411*
Chicago & North Western Pacific Type, 325*
Chicago, Rock Island & Pacific, Atlantic Type, 41*
Lake Shore & Michigan Southern Pacific Type Superheater Locomotive, 790*
New York Central Lines Pacific Type Superheater Locomotive, 785*
Pennsylvania Co. Pacific Type, 462*
Pennsylvania R. R. Atlantic Type Locomotive, 854*

Locomotive Service:
Efficiency of Railway Equipment, 822†, 935†, 978†, 1027†, 1100†, 1156

Locomotive Superheater Co.:
Pacific Type Superheater Locomotive; Chicago & North Western, 325*

Long Island:
Docks at Montauk, 292
Employee Benefits, 868
Lubricating Locomotive Valves, 1273*

Louisville & Nashville:
Agreement with New York Central & Hudson River, 1665
Covington Tunnel Enlargement, 1433*

Lucas Machine Tool Co.:
Boring, Drilling and Milling Machine, 443*

GENERAL INDEX—Continued.

[Illustrated articles are indicated thus*; Editorials thus†; Letters to Editor thus‡.]

Lubrication:

Collins Wheel Flange Lubricator, 1362*
 Detroit Transfer Filler, 1393
 Driving Box Lubrication, 1392*
 Force Feed Lubricator, 1362*
 Graphite Lubrication, 1273*
 Locomotive Lubricator, 1483*
 McCord Locomotive Lubricator, 1639
 McCord Lubricators for Valves and Cylinders, 1481*
 M. M. Report on Flange Lubrication, 1485†, 1498*
 M. M. Report on Lubrication of Locomotive Cylinders, 1450†, 1466*
 M. M. Report on Specifications for Tires, 1485†, 1496
 Semaphore Oil, 578

Lupton's, David, Sons Co.:
 Pond Sash Operating Device, 663*

Lumber (See also Ties and Timber)

M

McConway & Torley Co.:

Buhoup Flexible Truck, 1626*
 Freight Couplers, 1538*
 Steel Tired Wheel, 1590*
 McCord Mfg. Co.:
 Car Window Sash Locks, 1622*
 Universal Insulated Adjustable Copper Car Window Sash, 1582*
 Universal Weather Stripping, 1540*
 McCord & Co.:
 Driving Box Lubrication, 1392*
 Journal Box Lid, 1618*
 Locomotive Lubricator, 1639
 Lubricators for Valves and Cylinders, 1481*

MacBain, Donald, 1627†
 Machine Tools (See also Maintenance of Way; also Shops; also Bearings; also Gage; also Shop Kinks):
 Air Compressor Used for Convention Exhibits, 1620
 Boiler Shop Tool Room Practice, 392
 Boring, Drilling and Milling Machine, 443*
 Boring, Turning and Mounting Car Wheels, 1274*
 Chambersburg Steam Hammer, 1584*
 Forging Machine, 1485†
 Generators for Battery Charging, 1586*
 Grinding Wheels, 1361
 Helical Cutters for Milling, 1046†, 1063*
 High Duty Lathes, 444*
 Hydraulic Rail Bender, 774*
 Hydraulic Press, 1281*
 Individual Motor-Driven Machine Tools, 1093*
 Little Giant Drills, 1395, 1513, 1541*
 Lost Motion in Tools, 31
 Maxi-Mill Vertical Turret Lathe, 1585
 M. M. Report on Repair Equipment for Engine Houses, 1449†, 1460

Motor-Driven Boring Mill, 883*
 Motors for Railway Shop Drive, 1392*
 Opening Die Machine, 442*
 Portable Air Compressor, 1641*
 Portable Electric Radial Drill, 884*
 Power Bender and Straightener, 446*
 Prevention of Accidents in Shops, 416*
 Quick Clamping Wood Vise, 441*
 Radius Adjustment for Planing Motion Links, 1092*
 Reversing Motor Planer, 70*
 Selection and Use, 46*, 47, 48*, 49
 Semi-Automatic Nut Tapping Machine, 1282*
 Spiral Milling Cutters, 1044†
 Tractors for Operating Turntables, 1364*
 Vertical Turret Lathe, 1282*
 Vitrified Grinding Wheels, 530*
 Work for Men and Machines, 245

Madeira-Mamore Railway:

Construction, 1684*
 Magnetic Switch 884*

Mail:

Mail Car Requirements, 468
 Pay for the Carriage of Mail, 266†, 288, 1663

Maine:

New Railway Laws, 906

Maine Central:

Merger of the Washington County, the Somerset and the Sebastian & Moosehead, 1663

Maine Steamship Co.:

Service to Boston, 1665

Maintenance of Equipment (See also Shops; also Shop Kinks; also Accounting):
 Storehouse for Freight Car Material, 393*
 Unit Costs, 512, 1303*

Maintenance of Way (See also Rail; also Rail Joint; also Ties and Timber; also Roadmasters' and Maintenance of Way Association):
 Arch Waterproofing, 624*

Bury Ballast Trimmer, 1170*

Boltless P. & M. Anti-Rail Creeper, 664*

Bond Wire Protectors, 574*

Boss Nut Lock, 1622*

Boyer Rivet Buster, 1481

Maintenance of Way (Continued):

Broadening Employees, 1415†, 1418
 Browning Railway Ditcher, 818*
 Clearance Car, 795*
 Comparisons of Expenditures, 1163†
 Cost Data, 1416†
 Costs of Ditching Cuts, 1176
 Cost Ratio to Gross Earnings, 1677†
 Cross-Sectioning Borrow Pits, 1177*
 Dumping Concrete Mixer, 1172*
 Educational Bureau of the Union Pacific, 1415†, 1424, 1430
 Efficient Foremen, 975†
 Efficiency of Motor Cars, 1163†
 Goldie Tie Plates and Spikes, 771*
 Grab Buckets, 621*
 Hayes Derails, 765
 Increase in Expenditures, 960
 Kennicott Spreader, 670*
 Maintenance of Way Section, 931†, 1163†
 Metal Stock Guards, 617*
 Morrison Guard Rail, 769*
 Motor Cars for Section Forces, 1165, 1427
 Positive Nut Lock, 1361*
 Positive Rail Anchor, 573*, 667*
 Prizes to Roadmasters, 819†, 830
 Protection of Shoulders on New Embankment, 1431
 Protection of Temporary Bridges Against Fire, 1173
 Rail Re-Laying Car, 1175*
 Rail Tong, 1177*
 Ratchet Track Wrench, 1700*
 Recent Immigrant in Railway Work, 1201
 Records of Side Tracks, 975†
 Reinforced Angle Bar, 620*
 Reinforced Concrete Fence Posts, 618
 Retaining Wall; Chicago, Milwaukee & St. Paul, 827*
 Section Car (See Motor Car)
 Self-Locking Nut and Bolt Fastener, 1362*
 Steel Ties and Fastenings, 662
 Supply of Section Foremen, 1416†
 Tate Flexible Staybolts, 1481
 Tie Plates, 573
 Tie Plates, Transverse vs. Longitudinal Ribs, 111†
 Track Exhibit at M. C. B. Convention, 1612
 Track Supervision, 1417
 Waterproofing Work, 663*
 Weed Killing, 771*
 Wharton Guard Rail Clamp, 768*

Maintenance of Way Association (See American Railway Engineering and Maintenance of Way Association)

Maintenance of Way Competitions:

Bridge Kinks, 1415†
 How the Roadmaster Can Promote Efficiency, 1163†, 1415†
 Track Kink Contest, 1163†
 Prizes:

Track Kink Competition, 1415†

Maloney Oil & Mfg. Co.:
 Semaphore Oil, 578

Mann-Elkins Act (See Interstate Commerce Act)

Masonry (See Bridge; also Concrete)
 Master Blacksmiths (See International Railway Master Builders' Association)

Master Boiler Makers' Association:

Convention, 1250†
 Master Car Builders' Association (See also Atlantic City Conventions):

Advance Copies of the Committee Reports, 1337†

Annual Balls, 1549, 1609

Consolidation with Am. Ry. M. M. Assoc., 1627†, 1629*

Proceedings, 1550*, 1593*, 1629*

Report on Air Brake Equipment, 1548†, 1560*

Report on Car Wheels, 1548†, 1592†, 1600*

Report on Couplers and Draft Equipment, 1591†, 1594*

Report on Lumber Specifications, 1633

Report on Prices for Labor and Material for Steel Cars, 1633*

Report on Refrigerator Cars, 1591†, 1607*

Report on Revision of Code of Tests, 1605*

Report on Revision of Rules of Interchange, 1629

Report on Revision of Standards and Recommended Practice, 1547†, 1554*

Report on Rules for Loading Material, 1593*

Report on Safety Appliances, 1591†, 1602, 1639

Report on Springs for Freight Car Trucks, 1633

Report on Test of Brake Shoes, 1567*

Report on Train Brake and Signal Equipment, 1591†

Report on Train Lighting, 1634*

Report on Train Pipe and Connections for Steam Heat, 1636*

Twenty-Fifth Annual Convention, 1515†

Mechanical Freight Handling:

Motor Dolly for Handling Miscellaneous Package Freight, 991*

Mechanical Stokers:

Care of Stokers, 1367†
 M. M. Report on, 1365†, 1366†, 1372, 1449†

Mediation (See Employee)

Meter:

Recording and Indicating Flow Meters, 1137*, 1543

Michigan Central:

Annual Report, 678†, 723

Fast Schedule, 1320

Mileage:

Railways of the World, 1300†

Minneapolis & St. Louis:

Rules for Observing Hours-of-Service Law, 1119

Minneapolis, St. Paul & Sault Ste. Marie:

Engine House Kinks, 1058*

Exhortation to Efficiency, 911

Minnesota:

Double Track Railways, 172*

Minnesota Rate Case, 891†, 949, 987

Missouri, Kansas & Texas:

Freight Station at St. Louis, 1643†, 1647*

Missouri Pacific:

Annual Report, 377†

Control, 335, 931†

Future of, 343†

President Bush's Policy, 1215

Missouri River Bridge & Iron Co.:

Sacramento Bridge; Southern Pacific, 576*

Missouri Valley Bridge & Iron Co.:

Bridge Foundation Work, 625*

St. Louis Municipal Bridge, 775*

Mono-Rail Car:

Brennan Mono-Rail Car, 585

Morton, Paul, 157*

Motor Car (See also Track Kinks):

Fairbanks Motor Car, 623*

Gas-Electric Car on Buffalo, Rochester & Pittsburgh, 1091

Gasoline Electric Motor Car, 1623

Gasoline Inspection Car, 1514*

Inspection Cars, 1538*

Kalamazoo Motor Car, 668*

Little Giant Bus, 1586*

Passenger Cars on Ann Arbor, 469

Rockford Gasoline Motor Car, 580

Saving Effectuated by Use of Motor Cars, 1163†, 1165, 1427

Sheffield Motor Car, 441*

Velocipede Motor Car, 437*, 620*, 669*

Motor Dolly:

Handling Miscellaneous Package Freight, 991*

Municipal Engineering & Contracting Co.:

Cube Mixer, 579*

Concrete Mixer Charging Elevator, 626*

Concrete Mixer Lifting Attachment, 672*, 777

N

Nashville, Chattanooga & St. Louis:

Shop Kinks, 1071*

National Government Railway:

Four-Eight-Two Locomotive, 509*

Mallet Locomotive, 509*

Nathan Manufacturing Co.:

Low Water Alarm, 1511

National Lock Washer Co.:

Curtain Fixtures, 1586

Improved National Lock Washer, 1511

Sash Lock, 1622

National Machinery Co.:

Semi-Automatic Nut Tapping Machine, 1282*

National Malleable Castings Co.:

Extension Shank for Sharon Coupler, 1617

National Railway Devices Co.:

Duplex Uncoupler and Automatic Release, 339*

National Railways of Mexico:

Earnings, 425

National Surface Guard Co.:

Metal Stock Guards, 617*

Ratchet Track Wrench, 1700*

National Trans-Continental Railway (See Grand Trunk Pacific):

National Tube Co.:

Tube Test, 1544*

Naugatuck:

History, 800

New England:

Growth, 1231†

New Haven, Middletown & Willimantic:

Overdue Coupons, 1397†

New Nationalism (See Legislation)

New York:

Boiler Inspection Law, 342†

Grade Crossings, 71†

New York Central & Hudson River:

Agreement with Louisville & Nashville, 1665

Annual Report, 675†, 717

Apprentices Instructors' Conference, 209†, 233

Apprenticeship Questions, 1962*

Elongation and Ductility Tests of Rails for New York Central Lines, 653

Engine House Kinks, 1053*

Explosion at Grand Central Terminal, 291

New York Central & Hudson River (*Continued*):
Fined for Rebating, 520
Franchise Tax, 59
Grand Central Interlocking Machine, 1115*
Adams, H. C., Special Investigator, 1664
Interstate Commerce Commission Exhibit of Operating Statistics, 149†, 158*
Pacific Type Locomotives, 785*
Proposed Buffalo, Rochester & Eastern, 175
Rutland Railroad Control, 376†
Stock Watering, 4902, 781†
Traffic Agreement with the N. Y., N. H. & H., 889†, 976†, 1191†
New York, New Haven & Hartford:
Annual Report, New Form of, 1677†
Capitalization, 53
Car Routing on the New Haven, 834*
Collision near Fairfield, Conn., 1322
Competition with the Grand Trunk, 341†, 1023†
Compulsory Electrification, 1664
Connecticut Commerce Court, 189†
Effect of Canadian Reciprocity, 779†
Electric vs. Steam Locomotives, 907*
Genealogy, 356*
History of the Housatonic and Naugatuck, 800
New England Industries, 1097†
New Route Between Boston and New York, 931†
Relations with the Pennsylvania, 889†, 976†, 1191†, 1299†
Rutland Railroad Control, 376†
Station at New Haven, 779†
Traffic Agreement with Boston & Albany, 889†, 976†, 1191†
Valuation, 362, 461
New York Public Service Commission:
Annual Report, First District, 71†, 82
Annual Report, Second District, 109†, 120
Grade Crossing Elimination, 71†, 82, 109†, 120
Statistics of Second District for 1910, 59
New York Railroad Club:
Electrification of Steam Roads, 689
Paper on Wireless Telegraphy in Railroad Work, 341†
New York Subway (See Interborough Rapid Transit; also Hudson & Manhattan)
Nichols, Geo. P., & Bros.:
Electric Tractor, 68*
Nickel Chrome Chilled Car Wheel Co.:
Nickelized Chilled Car Wheels, 1584*
Niles-Bement-Pond Co.:
Reversing Motor Planer, 70*
Norfolk & Western:
Mallet Locomotives, 1153*
Steel Hopper Coal Car, 1656*
North Coast:
Inauguration of Train Service, 867
Telephone Train Despatching, 867
Northern Central (See Pennsylvania Railroad)
Northern Engineering Works:
Thirty-Ton Hoisting Crane, 530*
Northern Pacific:
Opening of Tacoma Passenger Station, 1178

O

Officer (See also Education; also Organization; also Public, The Railways' Relations with; also Employee):
Organization of a Train Despatcher's Office, 1407
Superintendent's Contact with His Men, 1302†
Superintendent's Qualifications, 1680†
Ohio Seamless Tube Co.:
Works, 440*
Oil (See Lubrication; also Shop Kinks)
Oregon:
New Railway Laws, 1309
Oregon Railroad & Navigation Co.:
Lignite-Burning Mikado Locomotive, 167*
Oregon-Washington Railroad & Navigation Co.:
Telephone Train Despatching, 1701
Organization (See also Officer):
Chicago, Rock Island & Pacific, 189†
Consolidated Organization on the Southern Pacific, 447†
Division Organization, 913
Increasing Efficiency, 1037
Letters from an Old Railway Official to His Son, 1191†, 1194, 1238, 1318, 1408, 1646, 1691
Needs of the Division, 1680†
Train Despatcher's Office, 1407
Otto Gas Engine Works:
Steel Coaling Stations, 770*
Ownership (See Finance; also Government Ownership)

P

P. & M. Co.:
Boltless Anti-Rail Creeper, 664*
Bond Wire Protectors, 574*
Lightning Arrester, 777*
Pacific Coast Local Freight Agents' Association:
Annual Convention, 1699
Pacific Railway Supply Co.:
Burdette Chainless Hand Brake, 438*
Packing (See also Shop Kinks):
Palmetto Packing, 1512*

Paint (See also Master Car and Locomotive Painters' Association; also Shop Kinks):
Corrosion and Protection, 1025†
Panama Railroad:
Freight Rate Increase, 513, 515
Parkersburg Iron Co.:
Charcoal Iron Tubes, 1363, 1512*
Passenger Rates (See also Interstate Commerce Commission Rulings; also State Commission Rulings; also Passenger Rate Increase; also Passenger Rate Reduction):
Passes in California, 1077
Passes in Illinois, 149†
Passes in Texas, 515, 802
Passenger Rate Increase (See also Interstate Commerce Commission Rulings; also State Commission Rulings):
Higher Summer Tourist Rates on Eastern Lines, 515
Pennsylvania R. R., 364
Tennessee Central, 1669
Passenger Rate Reduction (See also Interstate Commerce Commission Rulings; also State Commission Rulings):
Louisville & Nashville in Florida, 1079.
Michigan, 1079
National Educational Association Convention, 295
Pennsylvania R. R., 364
Philadelphia & Reading, 135
Pullman Company, 251
Southern Pacific, 1703
Summer Tickets to Colorado and Utah, 915
Washington, Alexandria & Mount Vernon, 673†
Passenger Service:
Efficiency of Public Service Railways, 1028*
Freight and Passenger Train Combined, 58
Inconvenient Tickets, 73†
New Route Between Boston and New York, 931†
Petty Annoyances, 4†
Waste Through Competition, 2†
Passenger Traffic:
Increase in Colonist Traffic, 960
Report for New York in March, 1178
Through-Train Chart; Southern Pacific, 830*
Pay (See Employee)
Pease, C. F., Co.:
Blue Print Plant, 577*
Standard Continuous Blue Prints, 623*
Motor Driven Cutting and Trimming Table, 671*
White Prints vs. Blue Prints, 770*
Pennsylvania Railroad:
Abolition of Rebates, 269
Accident at Martin's Creek, 1076
Agriculture, 1664
Annual Report, 449†
Apprentice School at Altoona, 854
Atlantic Type Class E-6 Locomotive, 854*
Benefits, 868
Buffalo Shop Kinks, 411*
Bush Train Shed at Baltimore, 76*
Clearance Car, 795*
Derailment at Martin's Creek, 1643†, 1655, 1677†
Electric Locomotives, 439*
Employees Paid for Ideas, 1121
Engine House Kinks, 843*, 1259
Fined for Demurrage Irregularities, 1182
Fined for Rebating, 520
Forestry Report, 1121
Freight Stations in Philadelphia, 329
Northumberland Freight Classification Yard, 491*, 682*
Pacific Type Locomotive Performance, 462*
Passenger Terminals at Philadelphia, 1299†
Proposed Capitalization, 107
Rebating Indictment, 1013, 1079
Relations to the New York, New Haven & Hartford, 889†, 976†, 1191†, 1299†
Shop Kinks, 1072*
Signaling at New York Terminal, 131
Signals Between the Potomac River and Capitol Hill Tunnel, Washington, D. C., 1693*
Steel Postal Cars, 1574*
Storehouse for Freight Car Material, 393*
Test of Simple Atlantic Type Locomotive, 125
Track Scales, 488†, 501*
Train Accident Record, 674†
Pennsylvania Steel Company:
Frogs and Crossings, 772*
Pension (See Employee)
Permanent Way (See Maintenance of Way)
Philadelphia & Reading:
Collision at Philadelphia, 1702
Fined for Violation of Demurrage Law, 1442
Philadelphia Package Express, 470
Philadelphia, Baltimore & Washington:
Signals Between the Potomac River and Capitol Hill Tunnel, Washington, D. C., 1693*
Philadelphia Rapid Transit Co.:
Report on Car Service, 512
Physical Valuation:
New York, New Haven & Hartford, 461
Piece Work (See Employee)
Pilliod Co.:
Baker Locomotive Gear, 1481
Valve Gear Stock, 1513
Pipe (See Hose; also Shop Kinks):

Pit (See Shops)
Pittsburgh & Lake Erie:
Fined for Granting Rate Concessions, 1182
Traffic Agreement with the Erie, 779†
Train Despatching by Telephone, 1320
Western Maryland Connection, 195*
Pittsburgh, Fort Wayne & Chicago:
Grade Separation at South Chicago, 758*
Pneumatic Tools (See Machine Tools; also Shop Kinks)
Positive Rail Anchor Co.:
Positive Rail Anchor, 573*, 667*
Post, D. & A., Mold Co.:
Reinforced Concrete Fence Posts, 618, 766
Prentice, Frank W.:
Wireless Train Control, 1659*
Price (See Business Situation)
Prosperity (See Business Situation)
Public, Railways Relations with (See also Finance):
Administrative Power Too Centralized, 293
Chicago Association of Commerce, 71†, 309†
Committee on Relations of Operation to Legislation, 1159
Duty of Station Agent Regarding Public, 11
Efficiency of Public Service Railways, 1028*
Express Companies, 1097†
Grounds for Encouragement, 897, 1321
Letters from an Old Railway Official to His Son, 1191†, 1194, 1238, 1318, 1408, 1646, 1691
Manners of the Interborough, 73‡
Politeness to Prospective Passengers, 1004
Political Activities of Railways, 341†
Poor Passenger Service, 4†, 452‡
Railways and the Express Companies, 1300†
Suggestions on A. T. & S. F., 911
Pullman Co.:
Car Ventilation, 1585
Differential for Upper and Lower Berths, 673†
Reduction of Rates, 185, 251
Pumps:
Oil Engine for Feed Water Pump, 1394*

Q

Q. & C. Co.:
Bonzano Rolled Steel Step Joint, 619

R

Rail (See also Maintenance of Way):
Am. Ry. Eng. & M. of W. Assoc. Report on Rail, 628†, 638*, 726†
Elongation and Ductility Tests of Rails for New York Central Lines, 653
Production in 1910, 423
Production of Rails in the United States for 1910, 423, 627†
Rail Joint:
Bonzano Rolled Steel Step Joint, 619
Hundred Per cent. Rail Joint, 668*
Loose Joints in Track, 451†
Rail Joint Co.'s Products, 618*
Rail Joint Co.:
Rail Joints, 618*
Railways (See Public, The Railways' Relations with)
Railway Appliances Association:
Personnel, 564*
Railway Automatic Safety Appliance Co.:
Automatic Stop, Penna. R. R. Test, 132
Railway Appliances Co.:
Automatic Tongue Lift and Brake for Baggage Trucks, 1513
Snow Flanges, 1484*
Vestibule Diaphragms and Curtain Fixtures, 1539*
Railway Bills in State Legislatures in 1911, 869*, 889†, 910, 1003
Railway Commissions (See State Railway Commissions)
Rate Law (See Interstate Commerce Law)
Railway Materials Co.:
Ferguson Furnaces for Steel Car Repairs, 1546*
Ferguson Spring and Case Hardening Furnace, 1364*
Railway Prospects in the South, 958
Railway Safety Equipment Co.:
League for Public Safety, 193†, 194†, 312†
Railway Signal Association:
June Meeting, 1410
Meeting in Chicago, 535†
Proceedings, 539*
Publication of Committee Reports, 536†
Publications, 755
Report on Alternating Current Signaling Apparatus, 558
Report on Automatic Block, 552*
Report on Mechanical Interlocking, 549*
Report on Portable Storage Batteries as Applied to Automatic Signals, 552*
Report on Power Interlocking, 550*
Report on Signal Symbols, 539*
Report on Electric Signaling for Electric Railways, 536†, 551*
Report on Signaling Practice and Standards, 539*
Results of Letter Ballots, 561
Waldron Automatic Stop, 1397†, 1406*

GENERAL INDEX.—Continued.

[Illustrated articles are indicated thus*; Editorials thus†; Letters to Editor thus‡.]

Railway Storekeepers' Association:
Railway as a Manufacturer, 1486*

Railway Supply Manufacturers' Association:
Annual Gall Game, 1341
Annual Meeting, 1452, 1518
Personnel, 1342

Ralston Steel Car Co.:
Drop Bottom Gondola, 1614*

Ramapo Iron Works:
Shoulder Switch Plate, 764*

Rebates (See also Legal Decisions):
Credit for the Abolition of Rebates, 269‡

Refrigeration:
Commission on Railway and Steamship Refrigeration, 1159
Insulation for Steel Passenger and Refrigerator Cars, 974*

Linofelt Flax Fiber Insulation, 374*
M. C. B. Report on Refrigerator Cars, 1591†, 1607*

St. Louis & San Francisco, 514

Reinforced Concrete (See Concrete)

Reliance Electric & Engineering Co.:
Individual Motor-Driven Machine Tools, 1093*

Reports, Annual (See Annual Reports; also Accounting; also Names of Companies)

Revenues and Expenses:
Increasing Tariff Expenses, 933†

River (See Waterways)

Riveter (See Machine Tools; also Shop Kinks)

Roadbed (See Maintenance of Way)

Road and Track Supply Association (See Railway Appliances Association)

Roberts & Schaefer Co.:
Coal Washing Plants, 580*
Fireproof Coaling Station, 625*
Holmen Coaling Station, 776*

Roof:
Am. Ry. Eng. & M. of W. Assoc. Report on Buildings, 725†

Roofing:
Hutchins All-Steel Carline Roof, 1539

Roundhouse (See Shops)

Rules (See Employee)

Rutland:
Control, 376†

Ryan & Johnson:
Coal Passers on Locomotive Tenders, 1579*

S

St. Louis:
Bridge Arbitrary, 190†
Federation of Commercial Organizations, 71†

Terminal Controversy, 1†

St. Louis & San Francisco:
Contract with the St. Louis, Iron Mountain & Southern, 1286
Exhibit Train, 1320
New Cold Storage Process, 514
Representation at Jefferson City, Mo., 92
Traffic Agreement with the A. T. & S. F., 1325

St. Louis, Iron Mountain & Southern:
Reorganization, 1664
Contract with the St. Louis & San Francisco, 1286

St. Louis Terminal Railroad (See Terminal Railroad Association of St. Louis)

Safety Appliances:
Annual Report of the Interstate Commerce Commission, 1061, 1251†
Automatic Stops, 153†, 169
Automatic Stops in Germany, 89
Automatic Stop, Penna. R. R. Test, 132
Block Signal and Train Control Board Report, 117
Harrington Automatic Train Stop, 1039*, 1161
League for Public Safety, 193†, 194†, 312†
M. C. B. Report on Air Brake Equipment, 1548†, 1560*
M. C. B. Report on Revision of Code of Tests, 1605*
M. C. B. Report on, 1591†, 1602, 1639
M. C. B. Report on Train Brake and Signal Equipment, 1591†
M. C. B. Standards, 1547†
M. M. Report on, 1489
Prentice's Wireless Train Control, 1659*
Waldrion Automatic Stop, 1397†, 1406*

Safety Appliance Law:
Extension of Time, 185, 424, 702
Inspection, 1547†
Louisville & Nashville Fined, 332
Supreme Court Interpolation, 1139†

Safety Car Heating & Lighting Co.:
Safety of Pintsch Gas, 1584

Salary (See Employee)

Saling, M. F.:
Simplex Freight-Car Ladder, 1248*

Sand Blast Apparatus, 1281*

Sanitation:
Cleaning Passenger Equipment at Terminals, 40
Louisiana Health Train, 1286

Sanitation (Continued):
Mott Sand Blast for Cleaning Steel Cars, 442*

San Pedro, Los Angeles & Salt Lake:
Rebuilding the Salt Lake Route, 937*
Water Tanks Excavated from the Solid Rock, 1177

Scales:
Track Scales, 488†, 501*
Track Scales in Timber Treating, 1040*

Scherzer Rolling Lift Bridge Co.:
Rolling Lift Bridges, 574, 666*, 767*

School (See Education; also names)
School of Cincinnati, 27

Scientific Management (See Efficiency Methods)

Scrap Pile:
Use and Misuse, 231

Screw Spikes (See Maintenance of Way)

Scullin-Gallagher Iron & Steel Co.:
Body and Truck Bolsters, 1542*

Seaboard Air Line:
Fined for Cutting Rates, 707

Section Car (See Car; also Motor Car)

Securities Commission:
Federal v. State Regulation, 1232†, 1239

Securities Commission:
Issue of Stock Below Par, 1309
Work of the Commission, 1232†, 1239

Semaphore (See Signal):
Shanghai-Nanking Railway, 1241*

Shear (See Machine Tools)

Shed (See Station)

Shipper (See Car Service)

Shop Kinks (See also Hoisting and Conveying):
Air Hoist for Car Wheel Boring Mill, 863*
Air Jack, 863*
Air Jack, Portable, 864*
Air Pump Gages, 221*
Air Pump Piston Head Holder, 1057*
Application of Flexible Staybolts, 217*
Applying Liner to Crosshead, 1057*
Arch Tube Former, 228*
Ash Pan Hoes, 410*
Babbitt Furnace, 221*
Babitting the Faces of Driving Boxes, 222*
Bar and Nail Puller Combination, 23*
Bending and Upsetting Machine, Portable, 412*

Bending Clamp, 413*

Bending Eccentric Blades, 227*

Bending Machine, Air-Operated, 408*

Bending Right Angles, 1073*

Bending Rolls for Light Work, 1058*

Blacksmith's Tool Rack, 1068*

Bolt Shearing Machine, 222*

Boring Piston Valve Chambers, 225*

Boring Tools for Air Pump Cylinders, 217*

Boring and Turning Cylinder Bushings, 405*

Boring, Turning and Mounting Car Wheels, 1274*

Buffalo Shop Kinks; Pennsylvania Railroad, 411*

Car Inspector's Hammer, 23*

Car Inspectors' Kinks, 395*

Car Inspectors' Pinchers, 395*

Car Repairman's Signal, 26*

Casting Brass Liners on Crosshead Gibs, 1071*

Chuck for Holding Bolt Heads, 227*

Chuck for Horizontal Boring Mill, 865*

Clamp for Exhaust Nozzle when Testing Steam Pipes, 843*

Cleaning Journal Packing, 22*

Clinker Rakes, 409*

Collecting, 31

Cold Saw for Locomotive Frames, 222*

Competitions:
Car Department, 17†, 209†
Engine House Kink, 17†, 387†, 209†
Increasing Shop Output, 17†, 243*

Instruction of Workmen, 209†, 387†, 835†, 1257

Reclaiming Scrap Material, 835†, 1043†, 1249

Scientific Management Applied to a Railway Shop, 1249†

Show Kink Competition, 209†, 217*, 387†, 403*, 835†, 863*, 1043†, 1249

Crane for Handling Storage Batteries, 25*

Cylinder and Valve Packing Rings, 865*

Cylinder Head Lifter, 845*

Cylinder Heads, Handling, 866*

Cylinder Packing Ring Saw, 410*

Dies for Forging Smoke Arch Braces, 228*

Double Babbitt Furnace, 228*

Drilling Knee, 407*

Driving Wheel Tire Cart, 1279*

Eccentric Mandrel, 225*

Emptying Barrels, 228*

Engine House Kinks, 843*, 1049*, 1259*

Engine Records, 1050*

Engine Work Reports, 1050

Eye-Bolt Bending Machine, 413*

Finishing the Inside of a Cylinder, 408*

Flue Auger, 845*

Forging Coupler Carrier Irons, 229*

Forging Coupler Yokes, 1069*

Forging Rod Straps, 229*

Front End Crane, 1049*

Furnace for Melting Bronze, 1260*

Shop Kinks (Continued):
Gas Furnace, 847*

Gasoline Heater, Portable, 1279*

Grease Cup Plugs, 1071*

Hoist Used for Riveting Yokes on Couplers, 411*

Hose Stripping Machine, 224*

Hydraulic Press for Light Work, 1092*

Increasing Shop Output, 398*

Inspector's Emergency Repair Cart, 27*

Jack for Loading Car Wheels, 864*

Jack, Steel Car Repair, 221*

Jack for Straightening Steel Trucks, 21*

Jack, Twelve-Ton Portable Pneumatic, 22*

Jacking Up Coaches, 25*

Journal Bearing, Emergency, 24*

Lake Shore & Michigan Southern, 1279*

Lamp Standard, Portable, 1279*

Lathe Tools for Brass Work, 220*

Locking Nuts on Bolts, 866*

Lubricating Holes in Hub Liners, 864*

Lumber Truck, 1068*

Machining Goose-Necks, 1065*

Machining the Outside of Solid Rod Cups, 406*

Macon Shop Kinks; Central of Georgia, 408*

Making Pilot Ribs, 28*

Mandrel for Piston Packing Ring, 227*

Milling Shoes and Wedges, 218*

Molding Packing Rings, 226*

Multiple Parting Tool for Piston Rings, 218*

New Theory of Belt Driving, 27

Oil Burner, 843*

Oil Grooves in Driving Box Shoe and Faces, 865*

Packing Ring Grinding Tool, 842*

Paint Sprayer, 844*

Petticoat Pipe Adjuster, 1071*

Plane for Babbitt Crosshead Shoes, 220*

Planing Babbitt Truck Brasses, 218*

Platform for Boiler Washer, 1058*

Pneumatic Breast Drill, 220*

Pneumatic Carpet Cleaner, 411*

Pneumatic Feed for Air Motors, 220*

Pneumatic Hoist, 845*

Pneumatic Hoist for Cinder Pit, 847*

Polishing Journals, 26*

Portable 1½-Ton Crane, 846*

Portable Work Bench, 1053*

Preparing Waste, 25*

Preparation of Journal Box Packing, 22*

Press for Light Work, 1072*

Prizes, 17†
Car Department Competition, 387†
Engine House Kink Competition, 835†
Instruction of Apprentices and Workmen, 1043†, 1048

Show Kink Competition, 1249†
Westbrook, M. H. 209†

Punch for Staybolt Tell-Tale Holes, 407*

Quartering Indicator, 220*

Quartering Machine Gage, 220*

Rack for Storing Coupler Knuckles, 26*

Reamers, 220*

Reclaiming Journal Bearings, 23*

Reducing Rolls, 1261*

Removing Car Wheels, 407*

Removing Driving Box Cellars, 1051*

Removing Tender Truck Brasses, 1049*

Repairing Battered Threads on Bolts, 2½*

Rivet Furnace, Portable, 21*

Rocker Box Boring Bar, 225*

Safety Clamp for Boiler Test Hose, 844*

Sand Blast Machine, 403*

Sharpening Milling Cutters on Their Arbors, 218*

Smith Shop, Increasing the Output, 32

Socket for Taper Reamers, 219*

Socket Wrench, 408*

Speed Reducer for Air Motor, 407*

Sponging Track and Pit, 866*

Storage of Repair Material in the Yards, 26*

Storehouse for Freight Car Material, 393*

Straightening Press, Portable, 412*

Stripping Air Hose, 404*

Stripping Machine for Torn Hose, 222*

Susquehanna Shop Kinks; Erie Railroad, 406*

Table for Emery Wheel, 413*

Telescopic Air Jack, 1050*

Threading Tool, 221*

Tire Heater, 409*, 1259*

Tire Wagon, 863*

Tool Holder for Turret Lathe, 227*

Tools for Forging Coupler Carrier Irons, 229*

Tools for Forging Rod Straps, 229*

Torch for Heating Steel Parts, 21*

Trip Hammer for Shearing Yokes from Couplers, 222*

Truck for Handling Mounted Wheels, 23*

Truck for Heavy Material, 1068*

Truck for Mounted Wheels, 1050*

Turning Steel-Tired Car Wheels, 24*

Turret Tool Head for Small Planer, 218*

Universal Coupling, 1053*

V-Blocks for Planing Crossheads, 406*

Wagon for Mounted Wheels, 844*

Shop Kinks (Continued):
 Walschaert Valve Gear, Removing Eccentric Crank Arm of, 843*
 Water Shield on Tender, 1280*
 Water Supply, 405*
 Whitewash Machine, Pneumatic, 845*
 Wrench for Operating Hopper Doors, 23*
 Yard Derrick, Portable, 24*
 Zinc End on Washout Plug, 1258*
 Shops (See also Efficiency Methods):
 Shops (See also Machine Tools):
 C. B. & Q. at Havelock, Neb., 33*
 Comparing the Efficiency of Railway Shops, 1249†, 1252
 Efficiency Methods (See Efficiency Methods)
 Electrification of the Shops of the Wabash Railroad, 216
 Elizabethport Shops; Central of New Jersey, 403*
 Equipping and Running a Shop, 245
 Huntington, W. Va., Shops of Chesapeake & Ohio, 419*
 Increasing Output of Locomotive Repair Shop, 215
 Increasing Shop Output, 398*
 Lighting of Railway Repair Shops, 837†
 M. M. Report on Repair Equipment for Engine Houses, 1449†, 1460
 Modern Locomotive Repair Plant, 1065*
 New Steel Foundry of American Steel Foundries, 1642*
 Ohio Seamless Tube Company Works, 440*
 Oil Furnace in Smith Shop and Forge, 1575
 Opening and Closing Shop Windows, 1064*
 Output of Locomotive Repair Shop Increased, 17†, 30, 243*
 Piece Work Notes, 402
 Plans for Locomotive Repairs Shops, 1044†
 Prevention of Accidents, 416*
 Railway as a Manufacturer, 1205
 Repair Shops and Locomotive Terminal; Kansas City, Mexico & Orient, 1269*
 Scientific Management (See Efficiency Methods)
 Smith Shop, Increasing the Output, 32
 United States Light & Heating Company's New Plant, 1228*
 Use and Misuse of Scrap Pile, 231
 Waycross Shops; Atlantic Coast Line, 405*
 Whipple Car Co., 529*

Siberia:
 Extension of Siberian Railways, 361

Signals (See also Railway Signal Association):
 Exhibition at the Coliseum in Chicago, 535†
 Galvanometer Type A. C. Track Relay, 622
 Railway Signal Assoc. Report on Signaling Practice and Standards, 539*
 Railway Signal Assoc. Report on Signal Symbols, 539*
 Semaphore Oil, 578
 Signal Lamps, 619
 Visible and Audible Combined, 133*

Signal, Block (See also Ry. Sig. Assoc.; also names of railways):
 Alternating Current Automatic Block Signals on the Cumberland Valley, 930
 Am. Ry. Eng. & M. of W. Assoc. Report on Signals and Interlocking, 581†, 591*
 Annual Report of Block Signal and Train Control Board, 117
 Block Signal Mileage January 1, 945*
 Canadian Practice, 1139†
 Chesapeake & Ohio, 65
 Control by Indiana Legislature, 192†, 309†
 Delaware, Lackawanna & Western, 727
 Discussion, 1139†
 Fish-Train Spacing, 1191†
 Improvement in Details, 131
 Indiana Law, 448†
 P. B. & W. at Washington, 1693*
 Railway Signal Assoc. Report on Alternating Current Signaling Apparatus, 558
 Railway Signal Assoc. Report on Automatic Block Signals, 552*
 Railway Signal Assoc. Report on Electric Signaling for Electric Railways, 536†, 551*
 Railway Signal Assoc. Report on Portable Storage Batteries as Applied to Automatic Signals, 552*
 Resistance Tube, 1361*
 Signal Aspects, 458, 890, 893†, 1102, 1143†, 1160
 Single Track High-Speed Interurban Signaling, 619
 Speed Limit, 1231†
 Waldron Automatic Stop, 1397†, 1406*
 Signal, Interlocking (See also Ry. Sig. Assoc.; also Names of Railways):
 Electro-Mechanical Interlocking Machine, 576
 Grand Central Interlocking Machine, 1115*
 Improvement in Details, 131
 P. B. & W. at Washington, 1693*
 Railway Signal Assoc. on Power Interlocking, 550*
 Railway Signal Assoc. Report on Mechanical Interlocking, 549*
 Signalman (See Employee)
 Smoke Prevention (See also Coal)
 M. M. Report, 1365†, 1376*
 Snow Flanges, 1484*
 Snow Sheds:
 Great Northern, 82*

Southern Pacific:
 Accident Near Palisade, Nev., 372
 Baton Rouge Cut-Off, 345*
 Consolidated Organization, 447†
 Electrification of Line in California, 956
 Merger with Union Pacific, 1678†, 1708
 Oil Burning Mallets, 1476*
 Pacific Coast Water Rate Cases, 872
 Record Car Handling, 53
 Sacramento Bridge, 576*
 Through-Train Chart, 830*
 Ticket Office in San Francisco, 129*

Speed (See Fast Trains and Runs)
 Spike (See Maintenance of Way)
 Sprague Electric Works:
 Armored Air Brake Hose, 1623*
 High Pressure Hose, 1482
 Reliable Shop Hose, 1587

Standard Asphalt & Rubber Co.:
 Refrigerator Car Seals, 1617
 Sarco for Refrigerator Cars, 1642
 Waterproofing Work, 624*, 663*, 768

Standard Car Truck Co.:
 Barber Roller Bearing Center Plate, 1588*
Standard Coupler Co.:
 Steel Platforms and Buffing Mechanism, 1588

Standard Rules (See Train Rules)
Standard Steel Works Co.:
 Steel Wheels, 1582

State Commissions (See also Commissions to Regulate the Issuance of Railway Securities):
 Connecticut Freight Tonnage
 Idaho, 375†
 Kentucky Commission's Constitutionality, 140
 Local Regulation, 1142†
 Nebraska State Commission Annual Report, 932†
 Power of Illinois Commission, 1287

State Commission Rulings:
 California: Demurrage Rates Reduced, 810, 868
 California: Discrimination Against Los Angeles, 180
 California: Joint Rates Between a Steam and an Electric Road, 1442
 California, New Railway Laws, 324
 California: No Reductions to Students, 1290
 California: Rates Between Los Angeles and the San Joaquin Valley, 295
 California: Rates from Los Angeles to San Joaquin Valley Points, 59
 Illinois: Railway Commission Bill Passed, 1219
 Iowa: Reduction of Express Rates, 59
 Louisiana: Change in Sugar Cane Rates, 1328
 Louisiana: Discrimination in Leasing, 59
 Louisiana: New Tariffs Must Show Changes, 1328
 Louisiana: Rate Bulletins Issued, 1013
 Louisiana: Telegraphic Rates Too High, 58
 Louisiana: Texas & Pacific Bad Passenger Service Stopped, 59
 Louisiana: Uniform Sand and Gravel Rates, 59
 Maryland: Inspection of Railway Properties, 810
 Minnesota: Method of Keeping Valuation Up to Date, 59
 Minnesota: Rate Case, 891†, 921, 949, 987
 Mississippi: Activities, 1644†
 New York: Automatic Stops on Subway, 362
 New York: Joint Express Rates with Canada, 98
 New York: Location of Station, 1397†
 New York: Pullman Rates, 99
 Pennsylvania: Activities, 171
 South Dakota: Rates Reduced, 297
 Tennessee: Passenger Rates Increased, 1669
 Wisconsin: Issuance of Securities, 59
 Wisconsin: Rates on Petroleum Products Must Be Changed, 965
 Wisconsin: Coal Rates Reduced, 474, 965

State Ownership (See Government Ownership)
State Ry. Commission (See also names)
Station (See also Yards and Terminals):
 Chicago & North Western at Chicago, 656*, 1311*
 Havana Passenger Station, 383*
 La Salle Street Station Train Shed Roof, 566*
 Minor Central Station or a Major Station on the Outskirts, 779†
 M. K. & T. Freight Station at St. Louis, 1642†, 1647*
 Northern Central at Baltimore, 76*
 Northern Pacific: Opening of Tacoma Station, 1178
 Passenger Terminal Facilities, 581†, 598*
 Pennsylvania R. R. at Philadelphia, 1299†
 Reinforced Concrete Bush Train Shed, 501*

Statistics (See also Accounting)
 Interstate Commerce Commission Exhibit, 149†, 158*

Staybolt (See Machine Tools)
Steam (See Iron and Steel; also Rail; also Wheel)
Steamer (See Ships)
Steel Concrete (See Concrete)
 Stewart, Alexander, 1628†
Stoker (See Locomotive Firebox)
Stock (See Finance)

Stokers, Mechanical (See Locomotive Firebox)
Storekeeping, 1†, 5, 85*, 161*, 201*, 276, 1095†, 1103*, 1254, 1401, 1681†
Apprentice System in the Store Department, 1247
Railway as a Manufacturer, 1486†
Standard Material Classification, 1247, 1398†
Standardization of Railway Tinware, 1260
Use and Misuse of Scrap Pile, 231
Storm (See Maintenance of Way)
Strauss Bascule Bridge Co.:
 Bascule Bridge, 578*, 622*
 Simplex Span Bascule Bridge, 669*
 Plated Girder Bascule Span, 778*
Strong, Carlisle & Hammond Co.:
 Frankfort Furnaces, 263*

Street, Clement F.:
 Locomotive Stoker, 1196*

Street Railways (See Electric Railways)
Strike (See Employee)
Studies in Railway Economics, 1†, 10, 75, 114, 155, 200, 1143, 1195, 1245, 1315
Subway (See also Tunnel; also names):
 Boston, 292
 Chicago, 292
 New York, 1436
 Proposal of Brooklyn Rapid Transit, 1003

Summers Steel Car Co.:
 Balanced Side Bearing Truck, 1544*

Superheaters:
 Applied to Old Engines, 1536
 Effect of High Temperatures on Cylinders and Valves, 110†
 Fuel Tests, 1414
 Maintenance of Superheater Locomotives, 1613
 M. M. Report on Superheated Steam, 1450†, 1468*
 Operation of Superheater Locomotives, 1571
 Pacific Type Locomotive; Chicago & North Western, 325*
 Pacific Type Superheater Passenger Locomotive; New York Central Lines, 785*
 Progress in Locomotive Superheating, 1341
 Report, Carnegie Institution, 357*
 Superheated Steam on Mallet Locomotives, 1477, 1510
 Superheated Steam on Passenger Locomotives, 1386

Supply Department, 1†, 5, 85*, 112*, 161*, 201*, 276*, 1095†, 1103†, 1235†, 1401, 1681†
Surprise Tests (See Employee, Discipline)
Surveying:
 Cross-Sectioning Borrow Pits, 1177*
 Shortening a Curve, 1170*

Switch (See also Signal, Interlocking):
 Economy Adjustable Head Rod, 575*
 Economy Claw Bar, 667*
 Economy Foot Guard, 778*
 Frogs and Crossings, 772*
 Interlocking Switch Stand, 930*
 Manganese Frogs, 765*, 973*
 Nickerson Single-Lever Safety Switch Lock, 769*
 Ramapo Shoulder Switch Plate, 764*
 Restored Manganese Steel Frog, 573
 Separable Switch Point, 620*
 Spiral Switch Guard, 768
 Style C Electric Switch-and-Lock Movement, 662
 Triplelock Switch Stand, 617*
 Wharton Frogs, 662

Switzerland, 937

T

Tabor Manufacturing Company:
 Taylor System, 1249†, 1272

Tank (See Water Service)

Tariff (See also Freight Rates; also Passenger Rates):
 Canadian Reciprocity as Affecting New England, 191†

Taxation (See also Legal Decisions):
 Federation Taxation of Railway Rentals, 1399†
 Increase, 3†
 Increase, 109†
 Railway Taxes in 1910, 1299†
 Uniformity, 133

Telegraph (See also Assoc. of Ry. Tel. Supts.; also Education; also Wire)

Telegraph Operator (See Employee)

Telephone (See also Train Despatching):
 New York to Denver, 1120
 Underground Telephone Line Between Philadelphia and Washington, 1077

Telpherage (See Hoisting and Conveying)

Tender Frames:
 Cast Steel Tender Frame, 1393*

Terminal (See Yards and Terminals)

Testing Materials:
 M. C. B. Report on Revision of Code of Tests, 1605*

Texas:
 New Railways, 912
 Operating Revenues and Expenses of 32 Roads, 1120
 Railways In, 1435
 Report of Railway Commission, 1285

Texas & Pacific:
 Discrimination in Leasing, 59
 Fined for Illegal Storage Charges, 328
 Simplex Safety Car Ladder, 1248*

GENERAL INDEX—Continued.

[Illustrated articles are indicated thus*; Editorials thus†; Letters to Editor thus‡.]

Third Avenue Railroad Co.:
Reorganization Plan Must Be Accepted by the Public Service Commission, First District, 1442

Ticket (See also Passenger Rates):
Making up Interline Tickets, Southern Pacific Ticket Office, 129*
Work of the Railway Ticket Protective Bureau, 426

Ties and Timber (See also Fire; also Lumber):
Am. Ry. Eng. & M. of W. Assoc. Report on Conservation of Natural Resources, 752

Am. Ry. Eng. & M. of W. Assoc. Report on Grading and Inspection of Maintenance of Way Lumber, 751

Am. Ry. Eng. & Maint. of Way Assoc. Report on Ties, 635

Am. Ry. Eng. & M. of W. Assoc. Report on Wood Preservation, 737*

Asphaltic Oils for Tie Preservation, 756

Condition of Treated Ties on Gulf, Colorado & Santa Fe, 999*

M. C. B. Report on Lumber Specifications, 1633

Mechanical Protection of Piles Against Marine Wood Borers, 612

Preservation of Trestle Stringers and Caps, 1428*

Preventing the Splitting of Ties, 1174*

Ties Purchased in 1909, 454

Tie Selection, 1164†

Track Scales in Timber Treating, 1040*

Universal Metallic Tie, 576*

Use of Crooked Timber, 1431

Wood Best Adapted for Cross Ties, 1426

Wood Preservers' Association, 127

Tie Fastener (See Maintenance of Way)

Tie Plate (See Maintenance of Way)

Tinware:
Standardization of Railway Tinware, 1260

Tire (See Wheel)

Titanium (See Rail)

Toledo & Ohio Central (See Hocking Valley)

Tool (See also Machine Tools):
Boiler Shop Tool Room Practice, 392

Ratchet Track Wrench, 1700*

Wire Grip with Locking Device, 1700*

Track (See also Maintenance of Way; also Construction, New):
Am. Ry. Eng. & M. of W. Assoc. Report on Track, 644*

Cost of Track Laying, 78

Double Track Railways in Minnesota, 172*

Efficient Foremen, 975†

Hill Track Level, 359*

Multiple Track in Minnesota, 172*

Records of Side Tracks, 975†

Subgrade Construction, 1427

Track Bolt (See Rail Joint)

Track Elevation (See Grade Separation)

Track Kinks, 1419*
Applying Stone Ballast, 1423

Ballast, Wing Spreader, 1422*

Breaking Rail, 1421*

Derailing Guard Rail, 1421*

Draining Subgrade, 1421*

Handling an Unloading Plow, 1419*

Mirror for Rail Inspection, 1423*

Mixing Nationalities in Track Gang, 1423

Motor Car for Pumping, 1423*

Placing Ties, 1422

Rail Monkey Bar, 1419*

Raising a Trestle, 1420*

Ratchet Wrench for Track Work, 1422*

Sod Line Trimmer, 1422*

Sprinkling Stone Ballast, 1419*

Unloading Rail, 1424

Track Unions (See Employee)

Tractive Power (See Locomotive Performance)

Traffic (See also Freight Traffic; also Passenger Traffic; also Business Situation):
Increase, 960

Increase from New York to the West, 1123

Increase at St. Louis, 1†, 190†

On Single Track, 1321

Relation of Repair Track to Traffic, 290

Train (See also Schedule; also Fast Trains and Runs)

Train Despatchers' Association of America:
Annual Convention, 1695

Train Despatching:
Gill Selective System, 1215

Train Despatching:
Organization of a Train Despatchers' Office, 1407

Telephone:
A. T. & S. Fe, 956

Baltimore & Ohio, 1075

Central Vermont, 1122*

Chesapeake & Ohio, 247

Chicago & Western Indiana, 291

Chicago, Burlington & Quincy, 1120

Chicago, Milwaukee & Puget Sound, 1076

Cincinnati, New Orleans & Texas Pacific, 1003

Lake Shore & M. S., 174

Lehigh Valley, 132

Lehigh Valley, 1215

Lehigh Valley, 1435

Missouri, Kansas & Texas, 1120

Train Despatching (Continued):
North Coast, 867

Oregon-Washington R. R. & Nav. Co., 1701

Pennsylvania R. R., 53

Pennsylvania R. R., 132

Pennsylvania R. R., 913

Pennsylvania, 1076

Pittsburgh & Lake Erie, 1320

Seaboard Air Line, 910

Telephone vs. Telegraph, 91

Telephone vs. Telegraph, 451†

Telephone vs. Telegraph, 681†

Train Ferry (See Car Ferry)

Train Lighting (See Lighting)

Train Line (See Hose)

Trainmen (See Employee)

Train Shed (See Station)

Train Resistance:
Effect of Undulating Grades, 452*

Effect of Undulating Grades, 681†

Friction of Freight Trucks, 674†

Friction of Freight Trucks on Curves, 691*

Tramp:
Industrial Colony for Tramps, 1643†

Tramways (See Electric Railways)

Traveling Engineers' Supplymen's Association Meeting, 1549

Trestle (See Bridge)

Trolley (See Electric Railways)

Truck:
Bolsters, 1539*

Bolsters, Bettendorf, 1393*

Bolsters, Body and Truck, 1542*

Buhou Flexible, 1626*

Freight Trucks on Curves, 691*

Friction of Freight Trucks, 674†

High Capacity Freight, 1589*

Locomotive, 1364*

M. C. B. Report on Springs for Freight Car Trucks, 1633

Passenger Truck, 1626*

Side Frames, 1482*

Summers Balanced Side Bearing Trucks, 1544*

Tongue Lift and Brake, 1513

Trucks, 1363*

Tube (See also Locomotive Boiler; also Tunnel; also Machine Tools)

Tubes:
Charcoal Iron Tubes, 1363

Tunnel (See also Subway; also names):
Chicago Passenger Subways, 653*

Hoosac Tunnel, 90

Loetschberg, 868

Louisville & Nashville, 1433*

Under Chicago River, 867

Ventilation, 373*

Turbine (See also Locomotive)

Turbine:
Low-Pressure Turbine, 439*

Turntable:
Electric Tractor, 68*

Heavy Service Tractor for Turntables, 12*

U

Underframe (See Car)

Underwood, H. B., & Co.:
Power Bender and Straightener, 446*

Radius Adjustment for Planing Motion Links, 1092*

Union Fibre Co.:
Refrigerator Car for Union Pacific, 1404*

Refrigerator Car Insulation, 374*

Union Pacific (See also Harriman Lines):
Educational Bureau of the Union Pacific, 1415†, 1424, 1430

Merger with Southern Pacific, 1678†, 1708

Refrigerator Car, 1404*

Special Tourist Car Trains, 471

Union Switch & Signal Co.:
Electro-Mechanical Interlocking Machine, 576

Galvanometer Type A. C. Track Relay, 622

Single Track High-Speed Interurban Signaling, 619

Spiral Switch Stand, 768

Style C Electric Switch-and-Lock Movement, 662

United Railways of Havana:
Passenger Station, 383*

United States Metal & Manufacturing Co.:
Galco for Interior Finish, 1514*

Hutchins All-Steel Carline Roof, 1539

Feasible Drop Brake Staff, 1626*

United States Radiator Corporation:
Athenian Wall Radiation, 1541*

United States Radiator Co.:
Car Radiators, 1625

Furman Boilers, 1482*

Packless Steam and Water Valves, 1642*

United States Radiator Corporation:
Radiators for Station Heating, 1512

Tank Heaters, 1588*

United States Steel Corporation:
Annual Report, 824†

Universal Metallic Tie Co.:
Universal Metallic Tie, 576*

Universities (See names)

V

Valley Bridge & Iron Co.:
McKinley Bridge, 670*?

Valuation of Railways:
Indiana, 1663

Investment Destroyed in Reorganizations, 821†

Minnesota Rate Case, 121, 891†, 949, 987

South Dakota, 121

Washington, 121

W. D. Williamson, 910

Wisconsin, 121

Valve (See also Machine Tools):
Crane Valves, 662

Effect of High Temperatures on, 110†

Packless Steam and Water Valves, 1642*

Power Plant Fittings, 573

Screw Reverse Gear, 72†

Setting Walschaert Valve Gear, 1280*

Walschaerts' Valve Gear, 1254*

Valve Discs:
Goetze, 67*

Vanadium (See Iron and Steel)

Vandalia Railroad:
Accident Record, 910

Ventilation:
Allen Car Ventilator, 1268*

Anti-Pluvious Skylights, 775*

Cars, 1583

Cyclone Ventilator, 1392

Detroit Fenestra, 264*, 621*, 668

Disc Ventilating Fan, 1021*

In Tunnel, 373*

Pond Sash Operating Device, 663*

Smoke Jacks for Concrete Engine House, 1021*

Steel Windows, 574

Viaduct (See Bridge)

Virginian Railway:
Sewall's Point Terminal, 951*

Traffic and Operation, 783

W

Wabash:
Electrification of Shops, 216

Fined for not Improving Mississippi Bridge, 1220

Slower Freight, 1665

Wages (See Employee)

Walschaerts Gear (See Valve)

Water Purification:
M. M. Report on Water Purification, 1450†, 1463*

Water Service:
Am. Ry. Eng. & M. of W. Assoc. Report on Water Service, 728*

Fairbanks-Morse Standpipe, 1625*

Protection from Fire, 670*

Track Pans, 762*

Water Station Apparatus, 671*

Water Tanks, 626*, 767*

Water Storage:
Water Tanks Excavated from the Solid Rock, 1177

Water Weigher, 622*

Water Terminals (See Hoisting and Conveying)

Waterways:
Cost of Rail and Water Transportation, 1236, 1678†, 1682†

Possibilities and Limitations, 12

Suez Canal, 919

Traffic at Sault Ste. Marie, 915, 1181

Transportation and Traffic in New York State, 178

Watson-Stillman Co.:
Hydraulic Press, 1092*, 1281*

Weir & Craig Manufacturing Co.:
Heavy Service Tractor for Turntables, 1092*

Welding (See also Shop Kinks)
Oxy-Acetylene Welding and Cutting, 1250†, 1615*

Oxy-Acetylene Welding for Steel Passenger Cars, 1055*

Oxy-Acetylene Welds in Steel, 837†, 847

Wells, Fargo & Co.:
Pacific Express Company Taken Over, 1215

West Jersey & Seashore:
Atlantic City Engine House, 866*

Western of France:
Collision at Courville, 327

Western Electric Co.:
Wire Grip with Locking Device, 1700*

Western Maryland:
Cumberland-Connellsville Line, 195*, 270*, 316*

Westinghouse, Church, Kerr & Co.:
United States Light & Heating Company's Plant, 1228*

Westinghouse Electric & Manufacturing Co.:
Controllers for Shop Use, 1621*

Electric Locomotives for the Pennsylvania, 439*

Motors for Railway Shop Drive, 1392*

Tractors for Operating Turntables, 1364*

Wharton, Jr., Wm., & Co.:
Frogs, 662
Guard Rail Clamp, 768*
Restored Manganese Steel Frog, 573
Wheels:
Boring, Turning and Mounting Car Wheels, 1274*
Cast Iron Wheel, 848*, 1548†, 1592†, 1600*
Cast Steel Wheels for Heavy Service, 1089*, 1582
Davis Cast Steel Wheels, 1396*
McConway Steel Tired Wheel, 1590*
M. C. B. Report on Car Wheels, 1548†, 1592†, 1600*
M. M. Report on Contour of Tires, 1485†, 1493*
M. M. Report on Flange Lubrication, 1485†, 1497*
M. M. Report on Specifications for Tires, 1485†, 1496
Nickel and Chrome Alloys for Chilled Iron Car Wheels, 268
Nickelized Chilled Car Wheels, 1584*
Standardization of Chilled Iron Car Wheels, 211†, 239*

Wheeling & Lake Erie:
Shop Kinks, 1068*
Whipple Car Co.:
Shops, 529*
White Enamel Refrigerator Co.:
Galvanized Pressed Steel Bulkhead, 1511*
White Star Line:
Olympic, 1701
Wiley & Russell Manufacturing Co.:
Opening Die Machine, 442*
Williams All-Service Car Door Co.:
Car Door, 1619*
Williams, White & Co.:
Locomotive Coal Chute, 1020*
Winslow, Horace L. Co.:
Clark Blow-Off System, 68*
Power Plant for Lake Shore & Michigan Southern, 716*
Wireless Telegraphy:
In Railroad Work, 341†
Prentice Wireless Train Control, 1659*
Reductions in Rates to England, 1215
Wood (See Ties and Timber; also Lumber)
Wood, Guilford S.:
Bracket for Brake Angle Cock, 485*
Hose Protector and Preservative, 1543*

Wood Preservers' Association:
Annual Meeting, 127
Works (See Shops)

Y

Yards and Terminals (See also Signaling; also Belt Lines; also Scales)
Am. Ry. Eng. & M. of W. Assoc. Report on, 581†, 598*
Baltimore & Ohio Yard at Chicago Junction, 1140†, 1145*
Chicago Great Western Grade Revision and Terminal Work, 1108*
Chicago, Milwaukee & St. Paul, 903*
Pennsylvania R. R. at Northumberland, 491*, 682*
Repair Shops and Locomotive Terminal; Kansas City, Mexico & Orient, 1269*
Repair Track and Its Relations to Traffic, 290
Sewall's Point Terminal; Virginian Railway, 951*
Terminal Electrification, 582†, 584

NEW BOOKS.

American Civil Engineers' Pocket Book, 893
Investigation of Built-up Columns Under Load, 1142
Block Signal and Train Control Board, Interstate Commerce Commission; Third Annual Report, 893
Coal Trade, The, 1098
Comparative Analysis of Railroad Reports, 490
Earning Power of Railroads, The, 680
Elements of Electricity for Technical Students, 267
Elements of Machine Work, 838
Effect of Key-ways on Strength of Shaft, 19
Electric Railway Dictionary, 1400
Electric Railway Transportation, 680
The Elements of Graphic Statics and of General Graphic Methods, 977
Employers' Liability and Workmen's Compensation, 194
Engineering Education, 1645
Engineering Law, 1193
Field Book for Railroad Surveying, 1165
Formula for Scientific Freight Train Rating, 1680

Freight Train Resistance, 344
Heat, 344
The How and Why of Freight Rates, 825
Index to Signal Literature, 1098
Locomotive Headlight, The, 1142
Loose-Leaf Pocket Book, 1026
Machine Shop Primer, 1251
Mechanical World Electrical Pocket Book for 1911, 194
Mechanical World Pocket Diary and Year-Book for 1911, 153
Metal Statistics, 267
Motion Study, 388
Notes on Plate-Girder Design, 1301
Pittsburgh Transportation Problem, The, 451
Principles of Machine Work, 838
Proceedings of the American Railway Tool Foremen's Association, 20
Proceedings of the Forty-fourth Annual Convention of the Master Car Builders' Association, 111
Proceedings of the Forty-third Annual Convention of the American Railway Master Mechanics' Association, 111

Proceedings of the International Railway Master Blacksmiths' Association, 194
Proceedings of the International Master Boiler Makers' Association, 20
Proceedings of the International Railway General Foremen's Association, 20
Proceedings of the Master Car and Locomotive Painters' Association, 20
Proceedings of the Thirteenth Annual Meeting of the American Society for Testing Materials, 977
Proceedings of the Traveling Engineers' Association, 20
Railroad Field Geometry, 680
Railroad Traffic and Rates, 1234
Rules and Formulas Relating to Boiler Inspection and Design, 215
Scientific Management, 680
Self-taught Mechanical Drawing and Elementary Machine Design, 267
Supply Department, The, 1026
Track Formulæ and Tables, 977

FOREIGN RAILWAY NOTES.

[See also General Index, under subjects and names.]

Africa, 254, 361, 366, 446, 526, 812, 818, 863, 1144, 1153, 1230, 1662, 1676
Argentina, 105, 131, 262, 288, 370, 467, 527, 712, 909, 951, 1074, 1158, 1193, 1301, 1628
Asia, 714, 863
Asia Minor, 708
Australia, 145, 199, 286, 882, 1446, 1510, 1546, 1613
Austria, 370, 422, 467
Belgium, 303, 369
Bolivia, 29, 1119, 1136
Brazil, 40, 45, 50, 52, 64, 99, 104, 115, 171, 182, 188, 254, 259, 262, 358, 463, 525, 714, 812, 863, 882, 1158, 1172, 1403, 1414
Ceylon, 254
Chile, 7, 50, 171, 180, 182, 246, 254, 259, 281, 286, 288, 337, 863, 906, 927, 1143, 1153, 1170, 1172, 1176, 1187, 1214, 1224, 1248, 1295, 1613, 1676
China, 40, 293, 326, 349, 467, 494, 520, 525, 526, 714, 815, 882, 944, 986, 990, 1021, 1040, 1132, 1158, 1223, 1294, 1311, 1328, 1713
Cuba, 59, 446, 866, 1058, 1239

Denmark, 1253
Dominican Republic, 104
Ecuador, 11, 714, 1132, 1148
England, 229, 246, 340, 885
Germany, 239, 245, 303, 708, 710, 712, 863, 866, 882, 1085, 1315, 1317, 1335, 1645, 1676, 1695
Guatemala, 259
Haiti, 337
Holland, 1662
Honduras, 882
Hungary, 359, 422
India, 69
Indo-China, 1144
Italy, 54, 303, 337
Jamaica, 74, 997, 1074
Japan, 361, 396, 829, 1673
Korea, 1224

Manchuria, 1136
New Zealand, 712
New South Wales, 789
Norway, 1017
Paraguay, 105, 169, 812, 1115
Peru, 1224, 1226
Poland, 1092
Portugal, 303
Russia, 69, 188, 259, 349, 944, 1051, 1158, 1226, 1613, 1710
Siberia, 1308
Spain, 326, 526, 812, 926
Sweden, 41
Switzerland, 369, 882, 885, 1051, 1085
Trinidad, 326
Turkey, 64
Uruguay, 12, 99, 188, 943, 1158, 1193, 1214, 1220, 1226

INTERSTATE COMMERCE COMMISSION RULINGS.

[See also General Index.]

Algert, C. H., Company v. Denver & Rio Grande, 332
Alpha Portland Cement Co. v. Pennsylvania Railroad, 1219
American Cigar Co. v. P. & R., 252
American Hay Co. v. Lehigh Valley, 1705
Anaconda Copper Mining Co. v. Chicago & Erie et al., 1289
Anadarko Cotton Oil Co. et al. v. Atchison, Topeka & Santa Fe et al., 98
Arizona Railway Commission v. Wells Fargo & Company et al., 1012
Arlington Heights Fruit Exchange et al. v. Southern Pacific, 372
Baltimore Butchers' Abattoir & Live Stock Co. v. Philadelphia, Baltimore & Washington et al., 427
Barr Chemical Works v. Philadelphia & Reading et al., 178
Barrett Mfg. Co. v. C. M. & St. P., 252
Beall v. Washington A. & M. V., 705

Beekman Lumber Company v. Illinois Central, 296
Big Cañon Ranch Co., and Corder & Co., intervenor, v. Galveston, Harrisburg & San Antonio Co. et al., 963
Blake, B. E., & Son, Hardware & Mfg. Co. v. Baltimore & Ohio et al., 427
Blumenstein, William H., v. Philadelphia & Reading et al., 1442
Board of Railroad Commissioners of Iowa v. Illinois Central, 429
Board of Trade of the City of Chicago v. Atlantic City Railroad et al. New York Produce Exchange v. New York Central & Hudson River et al., 964
Bookwalter Wheel Co. v. Tennessee Central et al., 1128
Bowles & McCandless v. Louisville & Nashville, 96
Browne Grain Co. v. Fort Worth & Rio Grande et al., 807

Browne Grain Co. v. Gulf, Colorado & Santa Fe et al., 427
Burton, Frank W., v. Unadilla Valley Railway et al., 140
Caldwell, W. E., v. Chicago, Indianapolis & Louisville et al., 807
Carstens Packing Co. v. Southern Pacific et al., 518
Carter White Lead Co. v. Norfolk & Western et al., 1289
Cincinnati & Columbus Traction v. Baltimore & Ohio Southwestern et al., 873
City of Ashland v. New York Central & Hudson River, 58
Cleary Brothers v. Chicago & North Western et al., 96
Clinton Bridge & Iron Works v. Chicago, Burlington & Quincy, 807
Cobb, R. E., et al. v. Northern Pacific et al., 296

INTERSTATE COMMERCE COMMISSION RULINGS—Continued.

[See also General Index.]

Commercial Club of Omaha v. Southern Pacific et al., 1181
 Commercial Exchange of Philadelphia v. Pennsylvania Railroad et al., 1219
 Consolidated Water Power & Paper Co. v. San Pedro, Los Angeles & Salt Lake et al., 429
 Crescent Coal & Mining Company v. Baltimore & Ohio et al., 963
 Crescent Lumber Co. v. Illinois Central et al., 472
 Crombie & Co. et al. v. Southern Pacific et al., 58
 Davenport Commercial Club v. Yazoo & Mississippi Valley, 58
 Day, J. H., Company v. Baltimore & Ohio Southwestern et al., 96
 Decarie Incinerator Co. v. Minneapolis & St. Louis et al., 1439
 Dells Paper & Pulp Co. v. Chicago & North Western et al., 807
 Douglas & Company v. C. R. I. & P. et al., 1668
 DuMee, Son & Co. v. Alabama, Tennessee & Northern, 96
 Duncan, W. S. & Co. et al. v. Nashville, Chattanooga & St. Louis et al., 1705
 Du Pont, etc., v. Depue & Northern, 254
 East St. Louis Cotton Oil Co. v. St. Louis & San Francisco et al., 96
 Edison Portland Cement Company v. D. L. & W., 296
 Empire Wall Paper Co. v. Boston & Maine et al., 58
 Federal Sugar Refining Co. v. Baltimore & Ohio et al., 472
 Florida Mercantile Agency v. Pennsylvania Railroad et al., 1439
 Franklin, Stiles & Franklin v. Southern Express Co., 1442
 Freeman Lumber Co. v. St. Louis, Iron Mountain & Southern et al., 1128
 Fremont Commercial Club v. Chicago, Burlington & Quincy et al., 1667
 Fullerton Powell Hardwood Lumber Company v. Virginia & Southwestern, 254
 Furnace Run Saw Mill & Lumber Co. v. Boston & Maine et al., 1012
 Gamble-Robinson Fruit Co. v. Northern Pacific et al., 807
 Georgia-Carolina Brick Co. v. Southern Railway et al., 427
 Georgia Fruit Exchange et al. v. Southern Railway et al., 1181
 Goerres, Phillip, Cooperage Co. v. Chicago, Milwaukee & St. Paul et al., 1219
 Goldenberg, Charles, v. Clyde Steamship Co., 963
 Goedkind Brothers v. Chicago, Indianapolis & Louisville et al., 1219
 Goodman Manufacturing Company v. Pittsburgh, Cincinnati, Chicago & St. Louis, 1707
 Hartman Furniture & Carpet Co. v. Chicago, Rock Island & Pacific et al., 873
 Havens, C. B., & Co. v. Chicago & North Western, 518
 Henderson, W. K., Iron Works & Supply Co. v. Texas & Pacific, 518
 Henry, George D., v. Eastern Railway of New Mexico et al., 427
 Hettler, Herman H., Lumber Co. v. Gulf & Ship Island Railroad, 1219
 Hydraulic-Press Brick Co. v. St. Louis & San Francisco et al., 96
 Imperial Wheel Co. v. St. Louis, Iron Mountain & Southern et al., 98
 In re Advance of Rates on Live Stock from Kansas City, Mo., to St. Louis, Mo., and other Mississippi River Crossings, 1705
 In re Transshipment Rates on the Chesapeake & Ohio, 1707
 In re investigation of advanced rates by carriers on grain, grain products, etc., 1290
 In re investigation of the advances in rates by carriers in official classification territory, 378
 In re investigation of advances in rates on cement by Carriers in trans-Missouri territory, 1080

In re investigation of advances in rates by carriers in Western trunk line trans-Missouri and Illinois Freight Committee territories, 381
 In re investigation of proposed schedules of rates on lumber by the Vicksburg, Shreveport & Pacific, 1012
 In re rates on lumber filed by the Vicksburg, Shreveport & Pacific, 1219
 In re request for suspension of reduced rates on packing-house products and fresh meats from Fort Worth, Tex., to Mississippi River crossings and points East thereof, 1326
 In re restricted rates, 809
 Independent Supply Co. v. Cumberland & Pennsylvania Railroad et al., 98
 International Salt Co. of Illinois, complainant, and Morton Salt Co., intervener, v. Geneva & Wyoming et al., defendants, and Detroit Salt Co., and Sterling Salt Co., interveners, 963
 International Salt Co., of Illinois, complainant, and Morton Salt Co., intervener, v. Pennsylvania Railroad et al., 963
 Iola Portland Cement Company v. M., K. & T., 254
 Kaul Lumber Company v. Central of Georgia et al., 807
 Lawrence-Wardenburg Co. v. Southern Pacific et al. F. D. Ogden v. Southern Pacific et al. New Orleans Board of Trade, Ltd., v. Southern Pacific et al., 1181
 McCaull-Dinsmore Co. v. Chicago, Milwaukee & St. Paul, 96
 Maritime Exchange et al. v. Pennsylvania Railroad, 1442
 Maxwell, W. F., v. Wichita Falls & Northwestern et al., 518
 Memphis Freight Bureau et al. v. St. Louis & San Francisco et al., 1707
 Memphis Freight Bureau v. St. Louis Southwestern, 98
 Meridian Fertilizer Factory v. Vicksburg, Shreveport & Pacific et al., 1012
 Miller & Lux, Inc., v. Southern Pacific et al., 427
 Miller, Fred, Brewing Co. v. Chicago, Milwaukee & St. Paul, 58
 Millinery Jobbers' Association v. American Express Co. et al., 919
 Minds, James H., and Julia A. Matz, trading as the Bulah Coal Co. v. Pennsylvania Railroad. James H. Minds, surviving and liquidating partner of James H. Minds and William J. Matz, lately trading as the Bulah Coal Co. v. same, 98
 Minneapolis Threshing Machine Co. v. Chicago, Milwaukee & St. Paul et al., 1705
 Moore, William E. v. New York & Long Branch Railroad Company, 963
 Mountain Ice Company et al. v. Delaware, Lackawanna & Western et al., 1290
 Murphy Brothers v. New York Central & Hudson River, Koolyrite Trucking Co. v. Pennsylvania Railroad et al., 1705
 National Association of Letter Carriers v. Atchison, Topeka & Santa Fe et al., 58
 National League of Commission Merchants of the U. S. v. Atlantic Coast Line, 427
 National Refining Co. v. Cleveland, Cincinnati, Chicago & St. Louis, 1219
 National Refrigerator & Butcher Supply Co. v. Illinois Central Railroad Company et al., 178
 Nebraska Material Company v. C. B. & Q., 254
 Noble, William K., v. Baltimore & Ohio Railroad Company et al., 178
 Noble, William K., v. Detroit & Toledo Shore Line et al., 96
 Noble, William K., v. Grand Trunk Western et al., 96
 Noble, William K., v. Jonesboro, Lake City & Eastern et al., 963
 Noble, William K., v. St. Louis Southwestern et al., 96

Northern Anthracite Coal Co. v. Delaware, Lackawanna & Western, 58
 Northern Wisconsin Produce Co. v. Minneapolis, St. Paul & Sault Ste. Marie, 1705
 Northwestern Leather Company v. Oregon Railroad & Navigation Co., 1290
 Nucoa Butter Co. v. Erie et al., 429
 O'Brien Commercial Co. v. Chicago & North Western et al., 96
 Ohio Face Brick Manufacturers' Association v. Adams Express Co. et al., 1012
 Ontario Iron Ore Co. v. New York Central & Hudson River et al., 1705
 Oregon Lumber Co. v. Oregon Railroad & Navigation Co. et al., 96
 Pabst Brewing Co. et al. v. Chicago, Milwaukee & St. Paul et al., 58
 Pacific Coast Co. v. Oregon Railroad & Navigation Co. et al., 518
 Pacific Coast Biscuit Co. v. Spokane, Portland & Seattle et al., 1128
 Parfrey, A. C., v. Chicago, Milwaukee & St. Paul et al., 364
 Peters, Joseph, v. Oregon Short Line et al., 1128
 Pierce, George N., Co. v. New York Central & Hudson River, 58
 Platten Produce Co. v. Kalamazoo, Lake Shore & Chicago et al., 1012
 Prahlow, R., v. Indiana Harbor Belt et al., 58
 Railroad Commission of Texas v. Atchison, Topeka & Santa Fe et al., 919
 Ridgewood Coal Co. v. Lehigh Valley, 1705
 Riverside Mills v. Charleston & Western Carolina et al., 472
 Riverside Mills v. Georgia Railroad et al., 807
 Rosenblatt, H. & Sons v. Chicago & Northwestern, 807
 Running, S., v. Chicago, St. Paul, Minneapolis & Omaha, 58
 Samuels, S., & Company v. St. Louis Southwestern et al., 1219
 Schaffner, J. C. & Co. v. Chicago, Rock Island & Pacific, 1219
 Scheuing, W. J., v. Louisville & Nashville, 1128
 Schultz, A. Geo., Co. v. Chicago, Milwaukee & St. Paul et al., 807
 Scott, William D., v. Texas & New Orleans et al., 427
 Scudder, Raymond B., v. Texas & Pacific et al., 1289
 Shoemaker, William D. v. Chesapeake & Potomac Telephone Co., 1181
 Sondheimer, E., Company v. Illinois Central et al., 1128
 Southwestern Produce Distributors et al. v. Wabash Railroad, 809
 Stacy, E. P., & Sons v. Oregon Short Line et al., 427
 Steinfeld, Albert, & Co. v. Illinois Central et al., 96
 Sweeney, Lynes & Co. v. New York, Philadelphia & Norfolk et al., 1128
 Texas Brewing Co. v. Atchison, Topeka & Santa Fe, 1705
 Texico Transfer Co. v. Louisville & Nashville et al., 96
 Thompson, W. I. & J. R., v. Louisville & Nashville et al., 427
 Truck Growers Association of Charleston v. Atlantic Coast Line et al., 518
 Vulcan De-Tinning Co. v. Union Pacific et al., 1707
 West Oregon Lumber Co. v. Astoria & Columbia River Railroad et al., 429
 Western Mantle Co. v. Spokane, Portland & Seattle et al., 1219
 Wheeler & Motter Mercantile Co. v. Chicago, Burlington & Quincy, 427
 Wheeler Lumber, Bridge & Supply Company v. Astoria & Columbia River et al., 58
 Willamette Pulp & Paper Co. v. Boston & Albany et al., 1705
 Wright Wire Co. et al. v. Pittsburgh & Lake Erie et al., 1290

PERSONAL.

[Portraits are indicated thus.*]

Adams, A. C., 812*
 Adams, Henry C., 1664
 Adreon, E. L., 1342*
 Alexander, Guy H., 1185
 Anthony, F. S., 1331
 Anthony, L. A., 1329*
 Atterbury, William W., 521*
 Auer, P. A., 300
 MacBain, Donald, 1627
 Bardo, Clinton Lloyd, 522
 Barnum, M. K., 1628
 Barrow, W. M., 297
 Bentley, H. T., 1486
 Berg, L. S., 1320
 Bernet, John J., 1329*
 Biscoe, H. M., 1329*
 Bock, P. E., 1670

Booz, Horace C., 102*
 Bower, George H., 432
 Bowes, Frank B., 1013*
 Brecht, Prof. Milton J., 297
 Brown, Joseph H., 1671*
 Burt, H. G., 957
 Bush, Benjamin F., 944*
 Calvert, H. S., 98
 Campbell, Hugh G. L., 101
 Cardwell, David, 1709
 Carr, Clyde Mitchell, 260*
 Carroll, William P., 367*
 Carson, C. E., 366
 Cessford, George E., 1131
 Chadwick, Robert A., 477
 Cizek, Frank, 1130*
 Clapp, Eugene W., 477

Clements, Judson C., 116*
 Conway, J. D., 1344*
 Coon, J. Walter, 100*
 Corey, William E., 53
 Cormier, William A., 1328*
 Cram, J. Sergeant, 1326
 Crawford, Joseph U., 102*
 Cundiff, Warren K., 181
 Curry, Howard M., 1131
 Curtis, Theodore H., 1340, 1445*

Daly, John W., 1083*
 Dickeson, O. L., 1013*
 Dickinson, William J., 180
 Dike, Chester T., 100*
 Diran, Daniel W., 922
 Dodge, Col. David C., 1294
 Doolittle, Robert L., 968*

Drew, J. G., 1294
 Earl, Harry D., 1185
 Elliott, Harry George, 524*
 Ensign, John F., 423
 Evans, J. W., 967
 Everman, John W., 1295*
 Farrell, J. A., 91, 186*
 Farris, William E., 300
 Finnegan, P. F., 1131
 Fletcher, R. V., 332
 Fort, V. D., 1131*
 Gannon, Frank S., 1294
 Garland, Thomas H., 186*
 Gibson, Andrew, 1709
 Gilcreast, Frank W., 256

Giles, Charles F., 1444
 Graves, Iverson Lea, 1671
 Gray, Carl R., 922*
 Greene, Frank H., 422*
 Greig, A. S., 966*
 Gutelius, F. P., 142*
 Hale, J. H., 474
 Hall, S., 968*
 Hammel, William A., 103
 Hand, George T., 924
 Hanson, A. S., 1330
 Harahan, William J., 60*
 Harlowe, David, 140
 Harris, J. H., 812
 Hatch, Samuel G., 367*
 Hattendorf, Joseph, 1131
 Henry, J. M., 1222
 Hinckley, Benjamin S., 1672
 Howson, E. T., 265
 Hunter, James Westmoreland, 1671
 Huppuch, Winfield A., 429
 Hustis, James H., 1328*
 James, John Moore, 1221*
 Jastrenski, Henry, 429
 Jonanson, Alba B., 1711*
 Johnson, William Herbert, 181
 Kauffman, J. A., 141*
 Keefe, John H., 1130
 Keegan, J. F., 923*
 Kellar, A. C., 1130
 Knickerbocker, C. E., 924*
 Kridler, George M., 256
 Landman, Louis Wiler, 101
 Lanigan, J. V., 1083

Lee, Elisha, 522
 Leiper, C. I., 811
 Levy, Edward Dailey, 1014*
 Long, Simon Cameron, 523*
 Lord, Herbert L., 1344*
 Loree, William C., 811
 Lynch, Warren J., 1018
 McCann, John J., 923*
 McCaughan, George, 920
 McClellan, William, 1013
 McCleskey, L. L., 1671
 McCormack, Ira A., 299*
 McDonald, B. M., 968
 McDonald, James D., 524
 McFadden, H. C., 256
 McInerney, M. G., 922
 McMahon, Thomas P., 876
 Mack, George J., 920
 Mahaney, John E., 1186*
 Martin, G. R., 1443
 Mason, Edward Wilson, 1670*
 Massey, Robert V., 522
 Mathews, Richard G., 922
 Maupin, John D., 1444
 Millar, Archibald B., 98
 Miller, Henry Irving, 1669*
 Mock, Eugene, 477
 Moore, Burchill Richardson, 368*
 Moore, Robert D., 1330
 Morris, Harvey Hansford, 181
 Mowery, J. N., 1015
 Mulhern, J. W., 1295
 Myers, William Heyward, 521*
 Newlan, John W., 99
 Newman, William A., 102*
 Nixon, W. C., 922*

O'Donnell, Richard Lincoln, 708*
 Owen, Francis, 1075
 Page, Charles Nathan, 709*
 Paton, W. F., 182*
 Pearsall, Nathan Gregg, 1443
 Pentecost, G. S., 300
 Pettingill, F. E., 1330*
 Phelps, Harry Judd, 477*
 Phillips, C. J., 1014*
 Prince, Sydney Rhodes, 430
 Prout, Col. Henry G., 1710
 Pugh, Charles E., 430*
 Rea, Samuel, 475*
 Reagan, Frank H., 709
 Reed, Frank D., 1445
 Reis, John, 1189*
 Rittenhouse, Harvey, 431*
 Robertson, Alexander, 1014*
 Robertson, James T., 431*
 Robinson, J. T., 1709
 Rodgers, John G., 811*
 Roehm, T. G., 1185*
 Rose, Donald, 1131*
 Runnels, John S., 1225*
 Ryer, Frederic A., 1331*
 Samuel, George F., 1320
 Scott, John A., 523*
 Scott, Osborne, 1083
 Shea, T. A., 366
 Sheaffer, Charles Miller, 522*
 Shepherd, John A., 1082
 Shriner, George M., 141*
 Slayton, F. T., 182*
 Smith, Minot R., 478
 Smith, R. D., 1331

Smythe, E. E., 1219
 Sommerville, Donald L., 1015
 Stanfield, R. G., 876
 Stafford, B. E. D., 1342*
 Stearns, W. A., 1340
 Stenger, Ernest, 810
 Stewart, Alexander, 1628
 Stewart, Daniel C., 522
 Stewart, James Alfred, 524*
 Storey, Jr., W. B., 1443
 Stradling, E. G., 1295
 Stuart, Francis Lee, 61*
 Stubbs, Ralph S., 181
 Tatnall, Henry, 520*
 Taylor, Richard V., 430*
 Thayer, John Borland, 520*
 Thomas, Isaac Biddle, 1222*
 Thornton, Henry W., 431*
 Thurtell, Prof. Henry, 98
 Torrey, F. A., 102
 Trump, Michael, 522
 Van Ummersen, Richard, 1330*
 Vauchain, Samuel M., 1711*
 Walker, Charles C., 141
 Wallace, John F., 1135*
 Wallis, J. T., 1220
 Waring, Orville T., 141
 Whalen, William H., 332*
 Whitman, John M., 1708
 Williams, T. H., 522
 Willise, A. N., 1221
 Winter, E. W., 190
 Wise, Marion J., 521
 Wood, B. T., 1129*
 Zwright, Silas, 1186

ELECTIONS AND APPOINTMENTS.

Abbott, E. L., 1221
 Abbey, F. G., 181
 Abbott, T. S., 142
 Acker, F. A., 142
 Adams, A. C., 432, 477, 812
 Adams, E. L., 333
 Adams, Ralph G., 709
 Ahern, P. E., 923
 Aiken, A. D., 367, 431, 523
 Akridge, T. B., 181
 Albert, G. L., 523
 Albert, L. U., 1082
 Alexander, George H., 1220
 Alexander, Guy H., 1130, 1185
 Allan, W. P., 967
 Allee, O. P., 333
 Allen, H. E., 180, 255
 Allen, J. A., 360
 Allen, J. H., 1443
 Allen, Stuart, 811
 Allen, W. H., 967
 Allison, J. W., 811
 Allison, W. H., 1330, 1444
 Allshouse, F., 1221
 Alvarez, C. R., 1670
 Amsden, W. H., 333
 Anderson, R., 922
 Anderson, Robert, 367, 431
 Andrews, E. D., 1185
 Andrews, J. B., 1130
 Andrews, R. C., 1220
 Anthony, F. S., 1221, 1331
 Anthony, L. A., 1329
 Armstrong, A. L., 876
 Armstrong, L. W., 521
 Arnold, B. W., 1669
 Arnold, Frank, 521
 Ashton, William, 1015
 Aspland, D., 376
 Athearn, F. G., 924
 Atkinson, H. M., 521
 Atkinson, H. W., 431
 Atterbury, William W., 475, 521
 Atwood, R. F., 300, 367
 Auer, P. A., 185, 300
 Aungst, D. B., 181
 Austin, J. B., 430
 Ayers, R. B., 1220
 Averell, W. H., 333, 366

Babcock, S. H., 1444
 Badley, L. C., 810, 876
 Baird, D. C., 524
 Baird, E. R. Jr., 1669
 Baird, S. C., 431
 Bailey, N. E., 255
 Balch, C. J., 141, 181
 Balch, D. L., 368
 Balch, F. J., 811, 1083
 Ball, John, 103
 Ball, J. M., 1330
 Ball, N. E., 967
 Bamford, W. B., 967
 Bankard, E. H., 1331
 Banning, Archibald T., 303
 Bardo, C. L., 476, 876
 Barkow, F. F., 181
 Barksdale, Charlton, 1444
 Barlow, S. D., 255
 Barnes, George H., 1082
 Barnett, Earl, 100
 Barnett, N. C., 367
 Barr, H. M., 61

Barrett, C. D., 1084
 Barrows, C. D., 1709
 Barry, C. C., 875
 Bartholomew, D. B., 968
 Bartlett, W. H., 709
 Barwick, L., 181
 Bates, S. C., 181
 Batturs, F. E., 432, 967
 Baum, W. W., 1015
 Baumer, E. G., 1708
 Beacon, T. H., 255
 Beals, A. D., 181
 Beals, M. S., 1082
 Beard, Stanley A., 708
 Beason, R. N., 1131
 Bechely, F. J., 1443
 Becker, W. E., 875
 Bedford, W. J., 1083
 Bell, C. E., 1330
 Bell, J. E., 431
 Bell, L. A., 1295
 Bell, L. D., 523
 Bellairs, W. F., 709
 Bennett, G. H., 1708
 Bennett, G. W., 876
 Bennington, J. H., 332
 Benson, Isaac, 523
 Benus, G. W., 256
 Berend, H., 102
 Berlingett, J., 60
 Bernard, A., 333
 Bernard, Abner, 299
 Bernet, J. J., 1294, 1329
 Berry, H. H., 1082
 Bertling, E. F., 367
 Bevan, W. T., 524
 Biddle, W. B., 60
 Bienemann, W. J., 99
 Birdsall, F. L., 60
 Biscoe, H. M., 1329
 Black, G. F., 1709
 Blain, J. E., 1444
 Blair, George D., Jr., 967
 Blair, James A., 332
 Blake, J. L., 476, 524
 Blakeburn, J. W., 1709
 Blakemore, J. B., 1129
 Blaker, L. J., 101, 876, 1015
 Blanchard, H. B., 1443
 Blanchard, M. C., 102
 Bland, A. S., 477, 524
 Blaauvelt, M. P., 180
 Blomeyer, E. F., 299
 Blue, F. D., 875
 Blydenburgh, R. R., 1221
 Boardman, H. E., 1221, 1672
 Bock, E. L., 100
 Bock, J. S., 1295
 Bock, P. E., 1443, 1670
 Boggs, Geo. T., 180
 Boles, Edgar H., 60
 Bone, A. B., 1671
 Bone, M. H., 923, 967
 Bonney, George L., 1295
 Boone, C. T., 1082
 Booth, Horace, 1221
 Boothby, F. E., 1671
 Booz, Horace E., 102
 Borden, E., 141
 Bosman, David, 430
 Bothwell, C. K., 431
 Bower, G. H., 333
 (Not same man as 367)

Bower, George H., 367, 432, 923
 Bower, John A., 1014
 Bower, William C., 710, 812
 Bowes, Frank B., 1013
 Bowker, C. G., 1185
 Bowles, W. C., 968, 1444
 Box, M. A., 333
 Boyle, A. W., 367
 Boyle, J. H., 1130
 Bradley, C. W., 141, 299
 Bradley, F. A., 709
 Bradley, Leroy, 432
 Bradley, M. C., 923
 Bradley, W. H., 1131
 Brady, G. J., 161
 Brand, R. A., 142
 Brandon, J. P., 1671
 Bransford, J. H., 432
 Brazelton, T. E., 1670
 Breckenridge, Geo., 100
 Brendel, F. L., 1082
 Brennan, Patrick, 102
 Brennan, Thomas F., 430
 Bretz, C. L., 431
 Brewer, H. G., 300
 Brice, Donald, 1294
 Briggs, B. H., 1331
 Briggs, D. D., 877
 Bright, P. F., 372
 Brill, W. H., 367
 Brunson, W. G., 875
 Bronson, Miles, 876
 Brooks, C. E., 100
 Brooks, E. G., 300
 Brophy, George, 810
 Brophy, John R., 876
 Broughton, M. C., 1671
 Broughton, W. W., 255, 476
 Browder, C. W., 876
 Brown, C. H., 1185
 Brown, C. L., 709
 Brown, Doswell, 475
 Brown, Frank P., 1294
 Brown, H., 1130
 Brown, H. A., 1220
 Brown, H. M., 1444
 Brown, J. H., 101
 Brown, J. H., 1329, 1671
 (Different from 101)
 Brown, J. M., 256
 Brown, J. S., 1083
 Brown, M. H., 967
 Brown, O. N., 1709
 Brown, R. G., 61
 Browne, C. S., 1444
 Bruce, G. S., 142
 Bruner, G. E., 61
 Bryan, H. S., 259
 Bryant, E. J., 1708
 Bryden, William, 967
 Buchanan, T. P., 1444
 Buckley, M. J., 299, 521
 Buffington, M. G., 476, 876
 Bullard, W. M., 142
 Burke, Frank J., 1330, 1444
 Burkhalter, C. M., 333, 367
 Burns, E. M., 1015
 Burns, T. J., 709
 Burcus, J. P., 1220
 Burt, A. M., 60
 Busch, A. G., 523
 Bush, B. F., 966, 1014
 Bush, W. H., 333
 Butcher, J. G., 432
 Butterfield, H. N., 799
 Byars, J. W., 1130, 1221, 1330
 Byers, M. C., 1671
 Byrnes, T. E., 810

Cabell, Joseph B., 61
 Caddy, F. D., 923
 Cahill, W. R., 141
 Calahan, J. Y., 300
 Caldwell, G. K., 1330
 Callahan, J. W., 99
 Calloway, D. W., 181, 300
 Calloway, Willis, 876
 Calloway, W. B., 811
 Cambie, A. J., 1444
 Cameron, Warren P., 255
 Campbell, A. Q., 299
 Campbell, B., 1443
 Campbell, C. C., 101, 367
 Campbell, Hudson, 180
 Campbell, H. G. L., 61, 101
 Campbell, J. C., 810
 Campbell, James G., 1185
 Cantillon, J. P., 1082
 Cantine, E. I., 877
 Cardwell, D., 1330
 Cardwell, David, 1709
 Carl, H. R., 924
 Carnahan, S. E., 1220
 Carroll, George, 1671
 Carroll, J. J., 967
 Carroll, L. S., 103
 Carroll, Phil, 1670, 1672
 Carroll, William F., 300, 367
 Carson, C. E., 366
 Carten, J. F., 875
 Carter, Geo. L., 299
 Carter, P. J., 1671
 Cary, J. R., 100
 Casey, L. A., 1295, 1444
 Causey, W. B., 366
 Cessford, George E., 968, 1131
 Chadwick, Robert A., 432, 477
 Chamberlin, C. H., 1671
 Chandler, J. B., 922
 Chapman, A. P., Jr., 1083
 Chapman, C. T., 1295
 Chastian, R. M., 299
 Chevalier, C. N., 1445
 Chew, W. L., 1328
 Choate, F. B., 101
 Cizek, Frank, 876, 1130
 Clair, John C., 876
 Clancy, R. J., 967
 Clapp, Eugene W., 300, 477
 Clarity, F. E., 967
 Clark, E. W., 521
 Clark, Frar. H., 102
 Clark, H. F., 521
 Clark, James L., 101
 Clark, J. W., 101
 Clark, M. J., 1329
 Clark, T. T., 922
 Clark, C. S., 810, 1129
 Clarke, M., 367
 Clay, W. A., 1444
 Clayton, R. C., 101
 Clemow, T. P., 1444
 Clendenning, F. H., 968, 1444
 Cleveland, A. F., 1709

ELECTIONS AND APPOINTMENTS—Continued.

Clevenger, H. C., 1221
 Coapman, E. H., 255
 Coke, Henry, 1220
 Colburn, D. K., 477
 Colby, F. D., 431
 Cole, F. M., 1444
 Coleman, C. T., 475
 Coleman, W. L., 476
 Colley, F. C., 1444
 Collier, S. P., Jr., 142
 Collins, C. C., 1295
 Collins, John C., 708
 Collins, T., 1130
 Colloty, T. C., 100
 Colvin, D. D., 1221
 Condon, C. B., 709
 Conlen, J. H., 1131, 1185
 Connally, P. C., 1129, 1131
 Convery, J. B., 1709
 Converse, W. L., 185
 Cook, A. R., 1672
 Cooke, G. S., 1443
 Cooley, R. S., 1015
 Coon, Walter J., 100
 Cooper, E. S., 967
 Cooper, G. A., 1015
 Cooper, W. A., 876, 1444
 Cooper, W. G. Jr., 142
 Cooper, W. L., 368, 432
 Copland, E., 811, 967
 Coppage, W. H., 1082
 Corcoran, John Williams, 477
 Cormier, William A., 1328
 Correll, F. J., 1670
 Corthell, A. B., 1709
 Corwin, F. L., 1671
 Cory, E. L., 101
 Costello, M. J., 476
 Cotter, William, 430
 Coughlin, C. R., 523
 Covert, W. T., 524
 Cowan, R., 1671
 Craig, W. L., 142
 Cramer, J. L., 1014
 Crandell, G. T., 141
 Craver, J. E., 60, 99
 Crawford, J. U., 102
 Crawford, Sam, 521
 Cray, J. R., 60
 Creagh, Robert B., 967
 Creamer, W. E., 523, 1295
 Creelman, R., 709
 Crehore, E. F., 431
 Croke, M. R., 1329
 Crooks, C. H., 476
 Crow, B. C., 1670
 Crow, F. A., 1131
 Crugar, E. L., 1331
 Cummings, J. H., 709, 1186
 Cummings, J. P., 259
 Cummings, F. I., 967
 Cummings, James E., 811
 Cundiff, Warren K., 101, 181
 Cunningham, C. S., 1185
 Cunningham, D. W., 1670
 Cunningham, G. J., 100
 Cunningham, J. J., 300
 Curran, George, 1708
 Curry, F. A., 61
 Curry, Howard M., 1083, 1131
 Curtis, H. F., 142
 Curtis, L. F., 333
 Curtis, T. H., 1444, 1445
 Curtis, Theodore H., 1445
 Custer, Charles C., 478
 Cutler, Henry P., 101
 Daffan, L. A., 922
 Dailey, J. C., 1082
 Dailey, M., 366, 810
 Dale, Arthur, 300
 Dale, F. D., 141, 180
 Daly, James P., 1083
 Daly, J. W., 1330
 (Not same as John W.)
 Daly, John W., 1083
 Daly, T. H., 1444
 Dalzell, J. O., 256, 1185
 Daniels, J. W., 333
 Darlow, A. M., 1185
 Daugherty, W. O., 300
 Davidson, A. J., 300
 Davidson, W. R., 476, 1185
 Davis, A. G., 299
 Davis, G., 255
 Davis, J. E., 100
 Davis, J. H., 967
 Davis, Maurice P., 256
 Davis, Theodore, 1015
 Daze, William, 333
 Deale, H. K., 476
 DeBernardi, A., 1670
 Decker, C. P., 1709
 Demuth, F., 299
 Dennison, R. A., 1221
 Derr, Harry, 1083
 De Vaughn, J. P., 60
 Deverell, F. A., 1014
 Devereux, T. M., 101
 Dewey, C. E., 1082, 1130
 Dewey, W. S., 967, 1015
 De Witt W. H., 521
 Diamant, A. E., 1129
 Dickeson, O. L., 1013
 Dickinson, William J., 180
 Dieman, C. W., 300
 Dike, Chester T., 100
 Dillard, W. C., 256
 Dinan, Daniel W., 876, 922
 Dirmeyer, George, 300
 Dittmehofer, I. M., 299
 Dobbin, G. A., 367
 Dodridge, P. B., 1444
 Dodge, David C., 1294
 Dodge, F. E., 968
 Dodge, J. W., 1670
 Doherty, Charles A., 876
 Doherty, J. L., 1669
 Dolan, J. A., 1330, 1443
 Doll, G. W., 1444
 Donohue, E. F., 1670
 Donahue, M., 924
 Donaldson, W. L., 1444
 Donovan, T., 102
 Doolittle, R. L., 477, 968
 Doud, Willard, 256, 333
 Dowdall, Dr. Guy G., 478
 Dowdy, G. B., 61
 Dowell, Osgood H., 255
 Dowie, E. J., 101
 Dowler, Frank N., 876, 967
 Downing, W. E., 1083
 Downs, Harry H., 875
 Doyle, Richard, 60
 Draper, S. H., 1131
 Drew, John G., 1220, 1294, 1329
 Drew, R. W., 968, 1330, 1444
 Drew, W. B., 1708
 Drew, W. H., 181, 1670
 Drewry, C. R., 1185
 Dryden, J. G., 1083
 Drysdale, W. F., 1221
 Duane, W. F., 1672
 Dudgeon, Robert, 300
 Duff, A. E., 432, 1130
 Duffey, G. J., 477
 Duggan, O. E., 1444
 Duke, H. G., 1330
 Duncan, Kenneth B., 1331, 1671
 Dunham, D. H., 299
 Dunn, T. L., 1709
 Dunne, Peter F., 810
 Durborow, R. N., 1709
 Dupuy, George A., 332
 Du Val, H. S., 1330
 Dwelle, L. A., 876
 Dyer, J. H., 333
 Eads, J. G., 967
 Earl, H. D., 1185, 1330, 1443
 Easley, F. J., 255
 Eaton, B. E., 521, 966
 Edwards, B. P. O., 476
 Egan, F. W., 1185
 Egan, John M., 1329, 1444
 Eglington, W., 432
 Eisman, T. S., 101
 Elkin, M. H., 142
 Ellet, V. W., 300, 811
 Ellingwood, F. L., 1331
 Elliott, Ashley J., 299
 Elliott, Harry George, 432, 524
 Elliott, J. B., 1185
 Elliott, J. H., 60
 Elliott, W. S., 967
 Ellis, A. O., 923
 Ellis, J. H., 300
 Elmer, William, Jr., 1709
 Elmore, E. E., 1709
 Ely, T. N., 1709
 Emerson, T. M., 141
 Emery, J. B., 333
 Ennert, Marcus M., 1330
 Endert, G. R., 300
 English, E., 1709
 Ensel, Theodore, 299, 1014
 Erwin, E. B., 181
 Edwin, J. B., 1295
 Evans, C. W., 101
 Evans, F. J., 810
 Evans, H. T., 1669
 Evans, J. C., 810
 Evans, J. W., 876, 967
 Evans, T. W., 967
 Evans, W. G., 810
 Everham, A. C., 877
 Everman, John W., 1185, 1295
 Ewing, J. C., 523
 Eysmans, J. L., 1221
 Fabian, H. A., 1709
 Failing, Willis H., 875
 Fair, E. W., 1131
 Fall, E. A., 256
 Farrell, J. E., 141
 Farrell, J. W., 708
 Farrell, T. R., 523
 Fatherson, T. W., 256
 Faulkner, F. G., 1082
 Fechtig, F. H., 142
 Feemster, J. L., 300
 Ferry C. B., 1443, 1669
 Field, Charles E., 1328
 Fields, L. R., 299, 521
 Finkle, L. V., 101
 Finnegan, P. F., 1131
 Finster, J. B., 709
 Fisher, C. D., 1294
 Fisher, E. B., 333
 Fisher, H. E., 810
 Fisher, O. E., 299
 Fisk, Daniel C. Jr., 709
 Fitzgerald, J. C., 1082
 Fitzgerald, J. M., 968
 Fitzpatrick, J. A., 709
 Flannigan, J. M., 1083
 Flannigan, J. M., 1082
 Fleming, R. L., 524
 Fletcher, R. V., 332
 Florence, C. A., 1083
 Flynn, E., 708
 Flynn, J., 255
 Foley, W. J., 1130
 Folger, J. P., 100
 Follette, A. G., 102
 Folsom, H. E., 810
 Forbes, T. A., 1295
 Ford, C. F., 1131
 Forster, W. D., 1129
 Fort, V. D., 1083, 1131
 Fortney, D. B., 811, 876
 Foust, W. H., 1670
 Fralich, C. C., 1444
 Franke, J. H., 876
 Franklin, W. S., Jr., 1671
 Fraser, G. G., 1709
 Fraser, J. C., 333, 367
 Frates, P., 876
 Frates, J. A., 875, 967
 Frazier, J. A., 99
 Freeman, J. N., 1220
 Freeman, T. J., 1129, 1185
 Fresenius, J. P., 255
 Fries, Archibald, 811
 Fries, H. E., 141
 Fry, H. S., 300
 Fuget, G. W., 876
 Fulton, W. H., 180
 Gable, C. W., 476
 Gain, H. M., 181
 Gaines, R. H., 333
 Gallwey, Harry, 1014
 Galvani, B. F., 1670
 Gannon, Frank S., 1294
 Gardiner, W. H., 968, 1444
 Gardner, R. L., 708
 Garland, F. M., 299
 Garner, R. L., 1130, 1443
 Garrity, John, 1185
 Gartner, J. J., 476, 523
 Gass, James, 476
 Gates, E. N., 521
 Gates, Frank M., 875
 Gates, W. H., 101
 Gatewood, R. J., 432
 Gavin, F. J., 967
 Gays, Harry K., 811
 Gebhardt, R. L., 142
 Gentine, P. F., 1221
 George, C. H., 299
 Gibbs, A. W., 1709
 Gibbs, W. B., 923
 Gibson, Andrew, 1672, 1709
 Gibson, E. E., 476
 Gilcreast, Frank W., 142, 182, 256
 Giles, Charles F., 1444
 Giles, E. S., 1670
 Gillerlain, W. J., 100
 Gilroy, E., 333
 Ginder, G. D., 256
 Gittings, Joseph, 1083
 Glenn, J. C., 1082
 Goodrich, C. Lacy, 367
 Goodsell, J. O., 1670
 Goodwill, Don G., 1083
 Goodwin, E. P., 60
 Goodyear, C. W., 1443
 Gordon, C. B., 299
 Gordon, J. A., 366
 Gorsuch, C. B., 709
 Gossett, C. E., 811
 Goucher, N. H., 141
 Gould, A. R., 1709
 Gould, E. A., 810
 Gould, Geo. J., 708
 Gould, Kingdom, 708
 Govan, J. F., 1083
 Grady, O. M., 366, 431, 476
 Graham, H. L., 1082
 Graham, H. E., 299
 Graham, Thomas A., 432
 Grant, W. J., 967
 Gratton, John, 333
 Gratton, P., 333
 Graves, Alan W., 1130
 Graves, I. L., 1330, 1671
 Gray, Archibald, 923
 Gray, Carl R., 875, 922
 Grealy, J. F., 300
 Greaves, W. F., 1444
 Green, C. C., 966
 Green, F. E., 1670
 Greenawalt, F. B., 255
 Greene, F. H., 478, 710
 Greene, W. F., 524
 Greenough, H. P., 255
 Greenwood, R. S., 61
 Greer, B. B., 1082

Greig, Alexander Simpson, 966
 Griffin, J. H., 967
 Griffin, I. M., 1329, 1330, 1444
 Griggs, C. B., 61, 101
 Griggs, C. E., 60, 102
 Griggs, G. L., 430
 Griggs, H. M., 101
 Grossheim, J. G., 1443
 Grubbs, C. M., 256
 Guess, John H., 300
 Gumbes, Joseph H., 476
 Gummersbach, C. J., 255
 Gunzelman, W. H., 141
 Gutelius, F. P., 60, 142
 Hackett, J. H., 181
 Hackett, J. W., 968
 Hagerty, Charles H., 476
 Hagerty, C. H., 180
 Hailey, J. W., 477
 Haldane, W. R., 968, 1330
 Hall, Charles, 1670
 Hall, Charles E., 1221
 Hall, Charles G., 432, 478
 Hall, J. S., 709, 877, 968
 Hall, S. L., 1329
 Halloran, Frank, 255
 Halstead, John, 968, 1444
 Halstead, A. S., 1082
 Hamilton, B. A., 181
 Hamilton, Charles, 876, 923
 Hamilton, J. O., 333
 Hamilton, R., 523
 Hammel, William A., 103
 Hammett, P. M., 1709
 Hammill, F. H., 1082
 Hand, George T., 877, 924
 Hanlin, H. R., 1708
 Hannauer, George, 99
 Hanrahan, J. C., 476
 Hanson, Albert H., 333
 Hanson, A. S., 1330
 Hanson, C., 1221, 1330
 Hanson, G. E., 432
 Hanson, J. F., 303
 Harahan, W. B., 1444
 Harahan, William J., 60
 Hardin, W. M., 1015, 1295
 Harding, E., 523
 Harer, W. S., 299
 Harger, A. V., 523
 Harlan, Edward S., 1220
 Harley, D., 877
 Harper, G. B., 1330
 Harper, L. D., 256
 Harrington, H. H., 1445
 Harris, G. W., 709
 Harris, J. B., 100
 Harris, J. H., 524, 812
 Harris, Louis P., 924
 Harris, Murray, 1221
 Harris, Page, 1185, 1294
 Harris, R. B., 102
 Hart, F. B., 1221, 1671
 Hart, J. B., 1185
 Hart, J. P., 255
 Harvey, A. E., 924
 Harvey, C. C., 60
 Harvey, Daniel F., 477
 Harvey, H. D., 476
 Harwood, C. M., 1221
 Haskins, R. T., 1444
 Hatch, H. A., 1015
 Hatch, Samuel G., 333, 367
 Hatcher, H., 366, 430, 431
 Hatfield, F., 160
 Hattendorf, Joseph, 1083, 1131
 Haughawout, W. R., 1130
 Hauke, John, 432
 Hausman, L. J., 1130
 Hawley, H. W., 1330
 Hawley, J. L., 1329
 Hayes, J. B., 101
 Hayes, Wm. M., 1015
 Hazelton, L. W., 1709
 Hazard, K. B., 966
 Healy, J. D., 1221
 Hedcock, C. H., 1444
 Hedrix, C. E., 100, 255
 Helpling, C. H., 523
 Henderson, S. P., 810, 876
 Hendry, J. A., 99
 Henius, Frank, 1330
 Hennessey, G. F., 1444
 Henry, J. M., 1083, 1222
 Herington, G. B., 524, 811
 Hermansader, E. Z., 1331, 1444
 Heron, J. W., 60
 Herr, F. C., 99
 Herrington, H. B. P., 923
 Herrman, B. W., 101
 Hessmer, C. T., 61
 Heusner, L. D., 877
 Hewson, J. W., 101
 Hey, J. I., 1669
 Heylmun, J. W., 333
 Hibbard, J. F., 1222
 Hickey, J. E., 1331
 Hickey, J. F., 708
 Hickey, W. J., 1671
 Higgins, Daniel J., 299
 Hill, J. G., 256
 Hinchcliff, T. P., 1015

Hinckley, B. S., 1444, 1445, 1672
 Hinckley, Geo. W., 101
 Hindman, A. S., 367
 Hine, A. C., 1221
 Hobart, George F., 333
 Hobbs, G. S., 1708
 Hobbs, W. J., 810
 Hocking, James, 811
 Hodge, George, 967
 Hodge, W. D., 99
 Hodgen, J. W., 101
 Hodgin, F. N., 100
 Hodkins, L. C., 524
 Hogue, W. M., 967
 Hole, C. W., 1082
 Holland, F. M., 299
 Holland, S. E., 524
 Hollinger, Roger B., 709
 Hollister, W. C., 1082
 Holmes, E. E., 1443
 Holmes, R. G., 968
 Holstein, Otto, 255, 430
 Hooper, C. E., 181
 Hope, W. L., 256
 Hopkins, C. F., 1082
 Hopkins, W. A., 478
 Hopper, F. W., 1130, 1221
 Horning, J. C., 1331
 Horton, H. P., 101
 Hoskin, W. J., 182
 Hoskins, E. C., 142
 Houston, J. P., 100
 Houston, J. S., 1330
 How, C. A., 303, 478
 Howard, J. K., 300
 Howard, R. H., 1329
 Howard, W. G., 811
 Howell, Frank J., 811, 876
 Howie, R. D., 100
 Hruska, Frank A., 875
 Huddleston, E. P., 100
 Huffman, S. S., 1708
 Hugel, George B., 923
 Hughes, Edward, 810, 812
 Hughes, L. J., 256
 Hughes, William A., 1295
 Humburg, A. P., 332
 Hume, F., 709
 Hunt, Eden B., 1672
 Hunt, H. H., 1444
 Hunt, R. J., 967
 Hunter, George D., 1444
 Hunter, G. S., 300
 Hunter, J. H., 333
 Hunter, J. W., 1295, 1671
 Hurley, R. P., 333
 Hurst, F. D., 300
 Husted, C. J., 100
 Hustis, James H., 1014, 1328
 Hutchinson, J. E., 875
 Hutchinson, D. L., 99
 Hutsen, T. M., 333
 Hyde, L. L., 61
 Ingalls, A. S., 1329, 1443
 Ingle, R. H., 142
 Ireland, A. B., 1708
 Irwin, J., 1295
 Irwin, L. A., 432
 Jack, D. H., 966
 Jackson, C. H., 61, 101
 Jackson, H. A., 923
 Jackson, H. W., 811
 Jackson, O. S., 367, 432
 Jacobs, L. M., 1331
 James, F. S., 1129
 James, J. M., 1083, 1221
 Jamison, E. L., 61
 Jarman, Henry E., 709
 Jenifer, F. M., 100
 Jennings, I. L., 333
 Jennings, W. B., 1221
 Jerome, W. B., 1221
 Johnson, A. J., 876
 Johnson, Charles E., 61, 333
 Johnson, E. P., 1330
 Johnson, F. F., 709
 Johnson, J. I., 923, 1130
 Johnson, Roy, 256
 Johnson, W. H., 60, 181
 Johnston, F. M., 524
 Jonah, F. G., 1671
 Jones, C. H., 1185
 Jones, C. W., 255, 299
 Jones, F. E., 1185
 Jones, H. E., 100
 Jones, J. O., 967
 Jones, J. W., 366
 Jones, L. R., 1129
 Jones, M. J., 524
 Jones, R. D., 431
 Jones, R. H., 1129
 Jones, R. L., 523
 Jones, T. H., 709
 Jones, William F., 1444
 Jones, W. H., 101
 Jopling, John, 875
 Joyce, Malone, 709
 Judd, Thomas, 1708
 Judd, W. D., 1708
 Judson, F. H., 523
 Judson, Hale D., 708
 Jutz, J. F., 1671
 Kaighn, Charles, 61
 Kamp, H. H., 476
 Karnes, William Lee, 1443
 Kauffman, James Allen, 141
 Kays, C. J., 100, 523
 Keate, E. J., 1329
 Keane, W. J., 923, 967
 Kearns, S. J., 876
 Kearsey, A. B., 875
 Keefe, J. H., 967, 1130
 Keegan, J. F., 709, 923
 Keith, W. W., 333, 476
 Kellar, A. C., 1130
 Kellogg, A. V., 477
 Kellond, W. A., 333
 Kelly, Frank K., 811
 Kelly, J. M., 141
 Kelly, Raymond, 1015
 Kelly, Raymond, 1295
 Kelly, W. R., 1082
 Kendig, S. A., 367, 1130, 1670
 Kendrick, J. W., 1329
 Kendrick, R. M., 1295
 Kennedy, A., 299
 Kennedy, N. H., 256
 Kennedy, R. J., 1708
 Kennelly, M. J., 255
 Kenney, W. P., 476, 923
 Kensey, J. G., 1444
 Kentfield, L. H., 1444
 Kephart, A. P., 432
 Kerwin, J. M., 1295
 Key, E., 1669
 Keyes, A. C., 1015
 Kidwell, Harvey, 1330
 Kies, W. S., 1329
 Kurtz, I. F., 1708
 Kilker, P. F., 299
 Kilpatrick, J. B., 256
 Kilpatrick, T., 1131, 1295
 Kimball, H. A., 923
 Kimes, J. C., 876
 King, Charles H., 101
 King, Hoyt, 180
 King, T. E., 1330
 King, W. N., 99
 Kirby, N., 877
 Kirkbridge, W. H., 811
 Kirkland, D. F., 876
 Kirkpatrick, W. M., 1015
 Kizer, T. J., 1015
 Klase, H. A., 923
 Kleine, H. F., 101
 Kline, Charles A., 145
 Knapp, E. G., 299
 Knickerbocker, C. E., 877, 924
 Knight, T. K., 1082
 Knoche, George C., 811
 Koch, H. W., 1295
 Kolbe, M. F., 1014
 Koller, F. S., 708
 Krause, George, Jr., 61, 101,
 Krebs, C. F., 60
 Kridler, George M., 61, 100, 256
 Kuhn, W. T., 478
 Lacey, J. D., 1185
 Laden, P., 1708
 Lamb, E. G., 1083
 Lambert, John, 1295
 Lambeth, G. L., 300
 Lambkin, H. J., 1130
 Landis, Lee H., 1185, 1330
 Landman, Henry W., 181
 Landman, Louis Wiler, 101, 709
 Landmeier, F., 1295
 Lang, Frederick C., 142, 255
 Lanigan, J. V., 923, 1083
 Lanigan, W. B., 968
 Lank, K. J., 432
 Lapin, Edward D., 181
 Larkin, James G., 923
 Larmour, R. E., 968, 1444
 Lashley, J. L., 476
 Lathrop, Frank C. L., 1130
 Lattig, F. A., 1129, 1220
 Law, Morell, 709
 Lawes, T. A., 477
 Lawrence, D. T., 1082
 Lawton, W. W., 1130
 Layfield, E. N., 432, 477
 Leach, N. M., 1221, 1444
 Leahy, W. J., 181
 Learned, F. E., 923
 Leavenworth, Benn C., 1329
 Leckie, A., 333
 Lee, Elisha, 476, 522
 Lee, George H., 181
 Lee, G. W., 1670
 Lee, W. F., 102
 LeFavire, L. E., 1221
 Lefebvre, A. W., 333
 Le Grande, C. D., 181
 Leighty, C. L., 922
 Leighty, J. R., 1670
 Leiper, C. I., 524, 811
 Leonard, J. W., 107
 Leonard, W. E., 967
 Levy, E. D., 875, 1014
 Lewis, B. R., 875
 Lewis, C. R., 101
 Lewis, E. J., 811
 Lewis, L. L., 521
 Lewis, W. C., 101
 Liddell, Walter, 1331
 Lillie, E. E., 476
 Lincoln, W. D., 141
 Little, W. J., 255
 Lloyd, J. A., 181
 Lloyd, W. J., 1443
 Lochlitter, W. H., 60
 Lockhard, W. M., 431
 Locke, H. G., 255
 Lockhart, E. R., 1672
 Logan, R. L., 332
 Lonergan, C. R., 1185
 Longstreet, D. W., 1083
 Loree, W. C., 521, 811
 Lorentz, D. C., 1444
 Loring, Homer, 332
 Louis, W. L., 923
 Love, R. E., 521
 Lovell, D. H., 1082
 Lovell, E. P., 100
 Loweth, C. F., 1295
 Lowry, R. G., 333
 Loy, J. E., 300
 Loyall, G. R., 255
 Lucas, W. K., 60, 100
 Luce, George W., 432
 Luckett, H. D., 1330
 Ludolph, C., 1670, 1672
 Luke, I. H., 333
 Lum, D. W., 256
 Lynch, Warren J., 1015, 1083
 McArthur, J., 1130
 McAluliffe, C. E., 1672
 McBride, J. P., 876
 McCabe, L. E., 1708
 McCall, H., 1443
 McCann, John J., 876, 923
 McCarthy, J. M., 1331
 McCarthy, O. P., 811
 McCarthy, T. W., 256
 McChord, J. M., 256
 McCleskey, L. L., 1330, 1671
 McCormack, F. E., 876
 McCormack, I. A., 299
 McCoy, F. W., 101
 McCraw, R. G., 709
 McCrea, E. F., 333
 McCrea, Jarvis S., 811
 McCue, J. H., 256
 McCulloch, A., 300
 McDavitt, G. H., 1082
 McDowell, J. F., 299, 431
 McDonald, B. M., 968
 MacDonald, D. C., 1444
 McDonald, James D., 432, 524
 MacDonnell, H. E., 967
 McDougal, J. A., 1670
 McDougal, A. J., 367
 McDowell, A. J., 967
 McDowell, Robert, 523
 McFadden, E. H., 1709
 McFadden, H. C., 181, 256
 McFarland, George A., 524
 McGarr, William H., 875
 McGeoy, T. J., 923
 McGraw, M. J., 1672
 McGraw, R. T., 99, 255
 McGrew, E. W., 332
 McGroarty, Robert B., 1131
 McGroarty, W. B., 1131
 McHale, F. A., 876
 McHenry, E. H., 1443
 McIlvaine, C. L., 1084
 McInerney, M. G., 876, 922
 McKay, G. G., 255
 McKee, W. J., 1670
 McKenna, E. A., 256
 McKim, J. B., 299
 McKinlay, J. M., 1443, 1669
 McLane, Jesse J., 223
 McLaughlin, S. T., 811
 McLellan, A. G., 182
 McMahon, A. J., 1185
 McMahon, M. J., 100, 142
 McMahon, Thomas P., 876
 McMillin, F. R., 923, 967
 McMullin, C. E., 876, 967
 McMurtie, William, 1444
 McNeill, A. L., 1084
 McNeillie, J. K., 967
 McQuaid, R. J., 811
 MacRae, G. H., 1709
 McTague, J. A., 923
 McWain, W. J., 811
 McWhirter, W. L., 1671
 Mahaney, J. E., 1084, 1186
 Maher, James T., 180
 Mallory, J. H., 1083
 Malone, M. E., 100
 Maloney, John, 61
 Maloney, T. J., 1082
 Manchester, A. V., 968
 Manchester, E. S., 142
 Manchester, H. C., 1708
 Manderson, A. R., 1709
 Mann, A. E., 256
 Marden, J. W., 300
 Mardo, C. L., 522
 Markham, Charles H., 303
 Markham, M. C., 1328
 Marks, J. A., 1083
 Marr, Perry A., 876, 923
 Marshall, William G., 876
 Martin, G. R., 1329, 1443
 Martin, Geo. W., 255
 Martin, N. R., 1130
 Martyr, H. F., 333
 Mason, E. W., 1082, 1130, 1670
 Mason, Henry, 967
 Massey, R. V., 476, 522
 Mathews, R. G., 876, 922
 Mathiasmier, Louis, 1709
 Matthews, H. W., 181
 Matthews, J. E., 300
 Maupin, J. D., 1331, 1444
 Maxfield, Geo. D., 61
 Maxwell, J. W., 1082
 May, C. S., 181
 Meadow, M., 1671
 Meeks, M. S., 99
 Meherin, R. K., 100
 Meneely, C. D., 332
 Mengel, J. C., 1083
 Merchant, W. S., 1083
 Meredith, H. P., 1083
 Merritt, B. S., 1444
 Merry, J. F., 876
 Metcalf, J. W., 333
 Metzger, George, 101
 Middleton, W. L., 101
 Millar, E. T., 300
 Millen, John, 1669
 Miller, F. D., 367
 Miller, H. L., 1220, 1443, 1669
 Miller, R. V., 1295
 Milligage, Elmer L., 101
 Mills, C. G., 142
 Mills, J. M., 523
 Milner, B. B., 1084
 Miranda, Augustin, 255
 Mitchell, A. J., 1185
 Mitchell, E. B., 1671
 Mitchell, E. F., 1221
 Moats, W. P., 367
 Mock, Eugene, 333, 477
 Mock, J. U., 1329
 Moeller, L. E., 876
 Moffat, D. H., 810
 Moffat, F. G., 810
 Moffat, B. F., 709
 Mohler, A. L., 141
 Moir, William, 1083
 Monchan, H. S., 255
 Monsarrat, Norton, 99
 Montague, C. H., 524
 Montgomery, F. H., 142
 Moore, B. R., 259, 368
 Moore, R. B., 101
 Moore, R. D., 1221, 1330
 Moore, R. J., 432
 Moore, T., 812
 Moquist, A. E., 102
 Moran, Henry, 1709
 Morehead, L. B., 477
 Morgan, C. A., 299
 Morgan, E. C., 1330
 Morgan, W. B., 476
 Morisey, J. M., 367
 Morris, H. H., 100, 181
 Morris, R. M., 1443
 Morrison, E. C., 811
 Morrison, H. W., 256
 Morrow, Joseph B., 1082
 Morse, Frank W., 1014
 Morton, G., 99
 Morton, S. S., 924
 Moss, T. B., 1444
 Motley, P. B., 1331
 Mowery, J. N., 477, 811, 1015
 Muir, John C., 1708
 Mulhern, J. W., 1082, 1295
 Mulkern, L., 967
 Mullan, J. J., 300
 Mullen, F. R., 1014
 Mullinix, S. W., 256
 Mullins, E. E., 1015
 Munday, J., 181
 Munson, John B., 476
 Munster, A. W., 1444
 Murphy, J. F., 1670
 Murphy, M. J., 1329
 Murphy, P. J., 709
 Murray, C. R., 1185
 Murray, H. E., 1221
 Murray, W. F., 181
 Muxen, M. B., 1671
 Myers, Charles H., 875
 Myers, W. H., 475, 476, 521
 Nace, R. R., 524
 Nancekevill, F. A., 709
 Nash, E. E., 1082
 Naylor, E. J., 709
 Needham, G. R., 1131
 Neff, William N., 1082, 1130
 Negus, W. F., 256
 Neilson, E. S., 1671
 Nelson, J. H., 99
 Nelson, W. D., 876
 Neudorfer, Jacob G., 1329
 Neville, J. H., 521
 New, Harry J., 1083
 Newell, O. S., 1294
 Newlean, J. W., 60, 99
 Newman, W. A., 102
 Nichols, Press, 1671
 Nichols, G. C., 477
 Nichols, Walter, 101
 Niel, E. A., 432
 Niemeyer, C. H., 524
 Niswonger, E. A., 101
 Nixon, W. C., 875, 922
 Nolan, W. J., 1671
 Norie, W. H., 367

ELECTIONS AND APPOINTMENTS—Continued.

North, J. G., 1130
 Northrup, A. W., 876
 Northrup, David, 709
 Norton, C. F., 1295
 Norton, W. B., 61
 Nutt, H. C., 99

O'Brien, D. A., 1015
 O'Brien, J. P., 99, 299
 O'Connor, Thomas, 1330
 O'Donnell, Richard Lincoln, 476, 708
 O'Donnell, J. P., 476
 Ogden, C. W., 1220
 Ogle, C. B., 1221
 Ohl, Howard E., 709
 Oliphant, L. E., 61
 Oliver, W. H., 476
 Oliver, W. J., 521
 Olmstead, M. E., 1443
 Osborn, E. F., 922
 Osborne, H. J., 256
 Osmer, J. E., 1131
 Otis, A. H., 1185
 Owen, W. R., 1331
 Owens, Dr. John E., 478

Page, C. A., 477, 709
 Page, W. T., 1131
 Paige, W. E., 430
 Palacios, V. E., 1220
 Palmer, G. P., 477
 Pankau, Edward G., 255
 Pankey, D. B., 1129
 Parker, A. D., 1669
 Parker, F. H., 1443
 Parker, J., 968
 Parker, W. C., 875
 Parmelee, Robert L., 967
 Parnell, Willis H., 967
 Parr, J. E., 475
 Parsons, L. G., 100
 Partridge, T. K., 367
 Pate, W. F., 430
 Paton, W. F., 61, 182
 Patterson, J. B., 476
 Patterson, P. C., 1709
 Payne, J. B., 1444
 Pearshall, N. G., 1294, 1329, 1443
 Pearson, E. J., 1220, 1295
 Peasley, B. J., 1672
 Peck, E. A., 521, 709
 Pelley, John J., 1444
 Penfield, W. H., 1331
 Pentecost, G. S., 185, 300
 Peoples, Howard, 1330
 Perkins, L. M., 1672
 Perry, E. J., 810
 Perry, F. J., 333, 476
 Perry, Samuel M., 1294
 Peter, Thomas, 101
 Peters, R. A., 523
 Peterson, Geo. W., 299
 Peterson, W. H., 256
 Pettengill, F. E., 1330
 Phelps, H. J., 367, 477
 Pheney, P. A., 102
 Phillips, A. B., 60, 1129
 Phillips, C. J., 876, 1014
 Phillips, W. H., 476
 Phipps, H. F., 1131
 Phipps, J. E., 1709
 Pierce, A. S., 180
 Pierce, J. E., 101
 Pierce, Thomas M., 99
 Platt, J. W., 523
 (Should be Piatt.)
 Pleasants, E. B., 142
 Poland, A. A., 300, 431
 Poore, George A., 876
 Pope, E. B., 1295
 Post, H. O., 1709
 Post, J. F., 141
 Potter, E. F., 708
 Potter, Mark W., 299
 Potts, R. L., 1330
 Poveleite, H. A., 142
 Powell, H. G., 1082
 Power, W. J., 923
 Powers, R. E., 966
 Pratt, J. C., 811
 Prendergast, J. F., 1185
 Price, T. M., 333
 Pridgen, L., 476
 Prince, Frederick H., 366
 Prince, H. C., 141
 Prince, S. R., 332, 430
 Prosser, Frank P., 432
 Pryor, S. F., 303
 Pugh, Charles E., 430, 475, 709
 Pullinger, J. G., 299
 Pyeatt, J. S., 299, 967, 1015

Quackenbush, A. W., 524
 Quigg, W. H., 60
 Quigley, J. P., 1130
 Quinlan, J. J., 180
 Quinlan, W. J., 1130

Radke, W. C., 61
 Rae, C. H., 1444
 Kaidler, W. P., 300
 Ramsey, J. P., 300
 Randolph, G. F., 430

Randolph, J. R., 1671
 Ranney, J. H., 255
 Ratchford, M. W., 299
 Raycroft, T. J., 61
 Kea, Samuel, 475
 Read, Byron C., 1221
 Reading, Robert K., 1709
 Reagan, Frank H., 477, 709
 Reed, Finley, 299
 Reed, F. D., 1331, 1445
 Reed, H. L., 255
 Reed, Nelson, 100
 Reeder, E. O., 1295, 1331
 Reeves, R. D., 1185, 1221
 Reid, Charles, 431
 Reilly, F., 102
 Reinhardt, A. A., 181
 Renshaw, F. M., 1082, 1221
 Rephorn, P. H., 709
 Resler, F. E., 968
 Rhett, William, 1083
 Rice, Fount Jr., 1221
 Richards, C. A., 256
 Richards, I. M., 1221
 Richardson, L., 333, 367
 Richey, M. M., 1670
 Richmond, W. H., 923
 Richter, G. H., 1220
 Rickard, T. W., 299
 Rickert, O., 1672
 Riley, G. M., 1709
 Rittenhouse, Harvey, 431
 Robb, Frank E., 1220
 Robb, J. M., 811
 Roberts, John, 333
 Roberts, Shelby S., 1444
 Roberts, Stanley D., 432
 Roberts, W. E., 1670
 Roberts, W. H., 476
 Robertson, Alexander, 1014
 Robertson, D. L., 1671
 Robertson, J. T., 431
 Robertson, S. B., 333
 Robinson, Elijah, 922, 966
 Robinson, George H., 182
 Robinson, J. T., 1672, 1709
 Robinson, W. J., 372, 1671
 Robson, Grover C., 967
 Rodden, W. T., 810
 Rodger, F. S., 1444
 Rodgers, J. G., 476, 811
 Rodman, W. B., 1669
 Roehm, T. G., 1185, 1221
 Rogers, E. I., 1444
 Rogerson, John E., 1444
 Rohwitz, C. J., 1221
 Rose, Donald, 1083, 1131
 Rosenstock, J. H., 259, 299, 1670
 Rosing, W. H. V., 966, 968
 Ross, George H., 1014
 Ross, W. B., 1709
 Roth, C. A., 300
 Rothschild, J. F., 300
 Rothwell, W. F., 1295
 Rounds, J. J., 299
 Rouse, J. C., 1131
 Rousseau, Theodore A., 432
 Rowan, Devan, 1185
 Rowder, T. W., 255
 Rowe, B. J., 1083
 Rowley, F. B., 811
 Royal, W. N., 141
 Royster, J. G., Jr., 60
 Ruble, R. S., 101
 Rudd, W., 1129
 Rupert, C. L., 255
 Russ, J. F., 1670
 Russell, Edward L., 332
 Russell, G. S., 333
 Russell, H. L., 255
 Russell, W. H., 99
 Rust, A. F., 333
 Ruth, William W., 431
 Rutherford, R. L., 1443
 Ryan, E. B., Jr., 303
 Ryan, John, 875
 Ryan, R. E., 100
 Rydene, J. F., 923
 Ryer, F. A., 1331

Salisbury, Frank L., 1015
 Sallee, D., 1670
 Sample, W. H., 1015, 1671
 Sampson, P. S., 1708
 Sanborn, F. S., 300
 Sanderson, W. K., 1709
 Sanford, J. B., 1015
 Sargeant, J. E., 1331
 Sawyer, Edward J., 876
 Schelke, G. W., 181
 Schell, Marshall H., 967
 Schimmel, J., Jr., 524
 Schmidt, C. A., 1130
 Schultz, F. W., 1672
 Schultz, R. H., 180, 181
 Schwartz, H. J., 141
 Schwitzer, J. E., 61
 Scofield, R. C., 877
 Scott, Bruce K., 99
 Scott, Charles, 1131
 Scott, F. T., 924
 Scott, F. W., 476
 Scott, John A., 367, 523, 923

Scott, Osborne, 709, 1083
 Seabrook, C. H., 1221, 1331
 Seddon, Isaac, 103
 Seigman, E. L., 1082
 Shackleford, J. B., 100
 Shaw, E. H., 1330
 Shaw, W. C., Jr., 477
 Shea, T. A., 333, 366
 Sheaffer, C. M., 476, 522
 Shearn, J. A., 923
 Sheehan, P. D., 255
 Sheeley, M. H., 709, 811
 Sheets, George H., 1082
 Shepard, H. E., 1671
 Shepherd, John A., 1014, 1082
 Shepherd, L. B., 523
 Sheppard, F. L., 1082
 Shirah, L. C., 476
 Shorter, R. G., 180
 Shriner, George M., 141
 Shrodes, W. R., 432
 Shubert, F. J., 61, 256
 Sibley, W. R., 1015
 Siebert, M. W., 333
 Siefer, F. M., 811
 Simmons, Wm., 101
 Simpson, C. E., 101
 Simpson, J. C., 966
 Sims, J. M., 521
 Singleton, J., 102
 Sinnickson, G. R., 524
 Skene, E. P., 255
 Skinner, W. O., 1130
 Slayton, F. T., 100, 182
 Sloan, H. M., 145
 Small, J. W., 333, 1709
 Smalley, J. B., 255
 Smallhorn, R. P., 708
 Smart, A. G., 708, 1014
 Smith, A. B., 1444
 Smith, A. L., 967
 Smith, C. F., 299, 709
 Smith, C. W., 1444
 Smith, E. E., 1082
 Smith, Fred, 61, 300
 Smith, F. J., 811
 Smith, F. W., Jr., 524
 Smith, George H., 968, 1444
 Smith, G. W., 1709
 Smith, H. De W., 333
 Smith, J. A. Jr., 1330
 Smith, M. R., 432, 478
 Smith, R. D., 1331
 Smith, William, 1083
 Smith, W. C., 1672
 Smith, Wright H., 475
 Smith, W. S., 1082
 Snell, E. M., 101
 Snodgrass, Lewis, 876
 Snow, C. P., 100
 Snow, J. P., 1709
 Snyder, G. N., 709
 Snyder, H. A., 256
 Snyder, L. N., 1709
 Snyder, W. H., 1185
 Sollitt, E. A., 366
 Solly, C. A., 1295
 Sommers, T. H., 523
 Sommerville, D. L., 967, 968, 1015
 Sovereign, A. J., 60
 Spangler, N. G., 1015
 Spencer, A. P., 1014
 Spencer, A. B., 923
 Spindler, O. F., 811
 Spinning, I. P., 877, 1221
 Stack, J. D., 299, 521
 Stackpole, S. T., 1671
 Stagg, J. E., 876, 967
 Stanfield, R. E., 476, 876
 Staples, C. R., 99
 Starr, Stewart, 1443
 Stearns, W. A., 1444
 Steele, F. M., 300
 Steele, J. H., 1129
 Steele, R. E., 1014
 Steger, W. T., 875
 Steiner, C. A., 1082
 Stembel, C. P., 100
 Stenger, Ernest, 476, 810
 Stephens, B. H., 1295
 Stevens, B. E., 1672
 Stevens, John F., 875
 Stevens, J. S., 299
 Stewart, A., 256
 Stewart, C. J., 811
 Stewart, D. C., 476, 522
 Stewart, J. A. P., 181, 523
 Stewart, J. P., 876
 Stewart, W. T., 966
 Stiles, F. W., 1185
 Stinson, J. H., 1221, 1331, 1671
 Stith, C. F., 256
 Stitzel, M., 1082
 Stoll, E. J., 142
 Stolp, G. E., 1082
 Stone, F. L., 1083
 Stone, H. M., 256
 Stone, S. S., 876
 Stoneburner, W. J., 181, 1082, 1129, 1130
 Storey, W. B., Jr., 1329, 1443
 Stowell, W. A., 810
 Stradley, Carl, 1015

Stradling, E. G., 1083, 1295
 Strain, B. W., 876
 Street, David H., 476
 Stringer, A. B., 1221
 Stroeh, E. F., 1672
 Strohm, Harry C., 1130
 Stuart, F. L., 60, 61
 Stuart, James, 1444
 Stubbs, John G., 432
 Stubbs, R. S., 181, 300
 Stuby, F. C., 61
 Sullivan, A. F., 923
 Sullivan, C. O., 1295
 Sullivan, D., 521, 1670
 Sullivan, Ennemett S., 967
 Sullivan, J. A., 1709
 Sullivan, J. L., 255, 967, 1015
 Sullivan, R. J., 60, 181
 Sumner, Eliot, 1083
 Sutton, M. R., 523
 Swan, E. P., 1015
 Sweat, T. F., Jr., 1082
 Sweeney, T. A., 810
 Sweet, A. E., 145
 Swenk, Jacob, H., 372

Tabbert, W. G., 367
 Tait, H. M., 709
 Talcott, E. L., 100
 Talley, C. A., 876
 Tally, W. J., 299
 Tarbet, W. L., 255
 Tarr, Homer S., 101
 Tasker, W. K., 299
 Tatnall, Henry, 475, 520, 810
 Tatum, E. P., 476
 Taussig, J. E., 366
 Taylor, C. M., 256
 Taylor, E. B., Jr., 333
 Taylor, F. W., 182, 259
 Taylor, G. W., 255
 Taylor, H. H., 1444
 Taylor, J. G., 60
 Taylor, J. J., 333
 Taylor, R. V., 332, 430
 Teasdale, T. W., 1709
 Ternes, Phillip, 1221
 Terry, J. L., 1329
 Thayer, J. B., 475, 520
 Thayer, Eugene V. R., 366
 Thayer, Nathaniel, 366
 Theiss, Charles A., 875
 Thiehoff, W. F., 259
 Thomas, C. L., 811
 Thomas, I. D., 1083
 Thomas, I. B., 1222
 Thomasson, E., 876, 967
 Thompson, A. W., 61
 Thompson, Fay, 1444
 Thompson, Frank W., 256
 Thompson, R. G., 61
 Thompson, Russell C., 1670
 Thorne, L. S., 1185
 Thornton, H. W., 255, 333, 431
 Tiddy, A. W., 1671
 Timpson, S. C., 1671
 Tinling, Alexander, 256
 Tinsman, W. S., 145
 Titus, Joseph F., 180, 255
 Toll, H. G., 523
 Tollerton, W. J., 256
 Tooker, H. B., 523
 Torbron, B. J., 101, 300
 Torrey, F. A., 102
 Toucey, Frank, 60
 Townsend, F. B., 142
 Townsend, Frank M., 811
 Townsend, S. A., 101
 Tracey, W. L., 1670
 Traynor, A., 333
 Trenam, George E., 967
 Trenary, G. H., 1708
 Trout, George W., 811
 Trowbridge, W. S., 1329
 Trueb, A. M., 1443
 Trufant, W. G., 1444
 Trumbull, James, 142
 Trump, Michael, 476, 522
 Trusler, S. L., 181
 Tunison, W. U., 60
 Turck, W. J., 1329
 Turnbull, R. J., 1670, 1672
 Turner, C. T., 476
 Turner, E. A., 1130
 Turner, J. F., 810
 Turner, W. A., 1330
 Turner, W. R., 100
 Turner, W. S., 923
 Tweed, George T., 1186
 Twyman, C. V., 333
 Tyler, C. M., 1131
 Tyler, W. T., 875

Updegraff, F. A., 60
 Upson, S. C., 1671
 Upton, W. H., 1708
 Urbahns, C. E., 922
 Urbahns, F. W., 922

Vallery, G. W., 1669
 Van Fossen, Fred, 299
 Van Ummersen, Richard, 1330
 Van Valkenburg, A. J., 922

Van Zandt, M. B., 180
 Vaughan, V. H., 1708
 Vaux, George W., 432, 1670
 Vernon, N. D., 524
 Vidor, C. S., 1082
 Vigor, C. F., 709
 Vincent, E. S., 1130
 Vincent, F. T., 181
 Violet, B., 1709
 Von Schrenk, Dr. Hermann, 1131
 Votaw, J. E., 1669

Wack, J. H., 1295
 Wade, E. E., 967
 Wait, D. F., 259
 Waldron, H. D., 1671, 1709
 Walker, C. C., 60, 141
 Walker, Roberts, 180
 Walkmeyer, John H., 709
 Wall, Thomas J., 255
 Wall, W. O., 875
 Wallace, C. L., 924
 Wallace, H. U., 141
 Wallis, J. T., 1082, 1083, 1220
 Walliser, W. W., 1082
 Walsh, F. O., 300
 Walsh, Frank J., 432
 Walton, N. B., 1443
 Ward, J. W., 1331
 Ward, W. H., 101
 Wardrop, W. M., 299, 333
 Ware, Charles, 141
 Ware, Henry, 1331
 Waring, O. T., 60, 141
 Warner, A. B., 256
 Warner, H. E., 431
 Warren, Charles D., 299

Warren, James J., 299
 Warren, Paul D., 432
 Waterman, E. S., 967
 Waters, W. H., 523
 Wathen, B. S., 1671
 Watson, A. C., 477
 Watson, H. W., 476
 Watts, A. J., 1083
 Watts, F. H., 333
 Watson, Guy H., 968
 Watts, M. F., 99
 Way, W. B., 1130
 Weaver, C. E., 1444
 Weaver, Geo. M., 61, 101
 Webb, William A., 1220, 1329
 Webber, Charles R., 521
 Weber, E. A., 875
 Weber, M., 333
 Weitzell, J. S., 1083
 Welch, J., 255
 Wells, M. N., 1015, 1083
 Wells, Walter, 1186
 Weymouth, F. E., 99
 Whalen, J. M., 1131
 Whalen, W. H., 332, 333
 Whallon, James I., 255
 Wheeler, W. B., 142
 Wheeling, H. A., 1221
 Whitcomb, F. E., 1709
 White, A. B., 876
 White, Edward J., 966
 White, J. L., 877
 White, J. Lowell, 1084
 White, J. W., 181, 1130
 Whitehead, J. B., 812
 Whitenton, W. M., 145
 Whiting, Frank V., 875

Whitman, John M., 1708
 Whitman, R. F., 1185
 Whitney, E. L., 709
 Whittington, A. G., 1220
 Whyte, Ira E., 255
 Wight, S. B., 710, 812
 Wilda, R. J., 181
 Wilkins, W. B., 922
 Wilkinson, H. F., 141
 Willard, Daniel, 430
 Williams, Charles W., 811
 Williams, Clarence L., 181
 Williams, F. W., 256
 Williams, H. M., 256
 Williams, H. Y., 367, 1130
 Williams, L. B., 523
 Williams, P. G., 922
 Williams, R. H., 180
 Williams, T. H., 522
 Williams, T. S., 299
 Williams, Taylor, 1330
 Williams, S. A., 256, 333
 Williams, W. S., 141
 Williamson, A. D., 142
 Williamson, J. T., 1221
 Willings, Geo. C., 256
 Willis, E. J., 1443
 Willis, W. H. H., 1221
 Willis, A. N., 1082, 1185, 1221
 Wilson, David G., 1185
 Wilson, F. H., 1443
 Wilson, George C., 709
 Wilson, O. H., 1082
 Wilson, R. E. Lee, 475
 Wilson, T. F., 299
 Winchell, E. T., 61
 Wineland, H. S., 100

Winer, B. K., 1671
 Winter, E. W., 255, 299
 Winters, G. W., 333
 Wise, M. J., 430, 521
 Wissmann, W. P., 1082
 Witherspoon, W. E., 709
 Wolfe, F. L., 431
 Wonder, W. S., 101
 Wood, B. T., 1129
 Wood, W. B., 1221
 Woodfin, J. E., 1221, 1295
 Woods, Ford, 101
 Woodward, R. J., 810
 Wooten, L. E., 521
 Worling, George, 877
 Worrall, John G., 1330
 Wright, C. C., 299
 Wright, F. H., 430
 Wright, G. D., 522
 Wright, W. D., 255
 Wright, W. H., 876
 Wulff, J. R. L., 1083
 Wurthmann, B. C., 60
 Wyatt, W. R., 1330
 Wyllie, W. H., 523
 Wyman, W. L., 141

Yardley, A. E., 431
 Young, Charles S., 432
 Young, H. C., 477, 923
 Young, W. H., 810

Zeigler, E. H., 141
 Zirkel, W. E., 1130
 Zoelmann, A. R., 180
 Zwig, Silas, 1083, 1131, 1186

OBITUARY.

Annable, Harry D., 142
 Bailey, J. C., 877
 Baldwin, William Ashbridge, 368
 Bamberger, S. M., 1132
 Brixey, William Richard, 1711*
 Bradford, W. H., 432
 Brosnihan, Maurice, 1445
 Brown, Alexander E., 1087*
 Brown, David, 877
 Brown, Henry Wentworth, 182
 Browne, William H., 146
 Buford, A. S., 1132
 Burgard, William M., 1132
 Bush, W. H., 1015
 Carmichael, Daniel, 432
 Case, C. M., 478
 Choate, Charles F., 1222
 Clancey, J. B., 257
 Clark, Alson Ellis, 186
 Clark, Charles G., 1132
 Clark, Erastus, Jr., 257
 Clarke, F. B., 1084
 Cox, Kenyon, 525
 Crane, Floyd H., 1084
 De Fuentes, Charles L., 1331
 De Wolf, Major Melville W., 303

Doherty, Joseph L., 1132
 Dressel, Dr. Charles H., 1135
 Dudgeon, Robert, 182
 Ege, R. S., 1084
 Elder, James Fulton, 257
 Elkins, Stephen B., 103
 Forbes, John M., 797
 Ford, F. H., 710
 Forrester, R., 142
 Glascott, R. D. G., 1709
 Goodyear, Charles W., 969
 Greenleaf, Edward S., 142
 Griffin, Henry T., 300
 Gwyn, W. B., 478
 Hall, Harry Hickley, 478
 Harvey, A. C., 300
 Hinckley, John Franklin, 368
 Hinsey, John A., 1084
 Jennings, W. B., 1132
 Jones, Joseph Albert, 61
 Judson, Hale D., 525
 Keiley, John Dennis, 1015
 Keiley, Frank K., 432

Kelly, W. R., 524
 Kendig, S. A., 1015
 Kenly, E. M., 1672
 Knapp, Dr. Seaman A., 963
 Knight, Clarence A., 1709
 Knott, William D., 182
 Laing, Howard E., 525
 Layng, Frank S., 371
 Liebert, Owen, 816
 Livingston, Johnston, 1132
 Lombard, Captain Danforth O., 1331
 McDonald, John B., 710
 McFarland, Henry, 1186
 McKinlay, James M., 1132
 McWain, W. J., 333
 Madden, Edward W., 524
 Mason, William B., 435
 Maxwell, J. W., 478, 525
 Meade, Spencer, 877
 Moffat, David H., 710
 Morgan, Charles H., 106
 Morton, Paul, 157*
 Moseley, Edward A., 969
 Moses, George, 304
 Newton, M. L., 257

Parker, Hilon A., 1084
 Payne, John E., 333
 Polhemus, W. S., 968
 Pope, E. B., 1132
 Reinhart, Joseph W., 257
 Russell, Col. Edward L., 257
 Schwitzer, John Edward, 182
 Scott, John A., 877
 Searles, J. G., 478
 Seymour, William O., 180
 Simonson, Charles D., 368, 432*
 Sloan, John, 524
 Smith, Sylvester T., 1672
 Snowdon, Edward W., 928
 Sweeley, George Parsons, 182
 Taylor, James G., 257
 Thayer, Nathaniel, 710
 Tiddy, Arthur W., 1222
 Van Rensselaer, J. F., 103
 Warner, Charles Guille, 1186
 Williams, Richard H., 924
 Wood, William B., 1084
 Woods, Ford, 968
 Wright, Charles A., 1295

RAILWAY CONSTRUCTION.

Aberdeen & Asheboro, 924
 Akron, Canton & Youngstown, 1296, 1333
 Alabama, Tennessee & Northern, 1132
 Alaska Northern, 813
 Alberta Central, 103, 710, 813
 Alberta Electric, 1186
 Alexandria & Western, 433
 Algoma Central & Hudson Bay, 334, 368, 1713
 Alma Railway, 1674
 Alton, Jacksonville & Peoria (Electric), 1222
 American Central Railway, 183
 Angelina & Neches River, 1132, 1333
 Antioch & Stockton (Electric), 924
 Aransas Terminal, 183
 Ardmore, Duncan & Lawton, 710
 Arizona & Gulf, 1186
 Arizona & Swansea, 1447
 Arizona Eastern, 478
 Arizona, Mexico & Gulf of California, 301
 Arizona Roads, 103, 1084
 Arkansas City, Wellington & Northwestern, 710, 1084
 Arkansas Roads, 301, 526
 Aroostook Valley (Electric), 1084
 Atchison, Topeka & Santa Fe, 103, 257, 301, 433, 877, 924, 1016, 1132, 1674
 Atchison, Topeka & Santa Fe Coast Lines, 924, 1186, 1296, 1713
 Athens & Southeastern, 183
 Atlanta, Waycross & Northern, 478
 Atlantic & Gulf Terminal, 62
 Atlantic Coast Lines, 1132, 1186, 1447
 Atlantic, Northern & Southern, 257
 Atlantic, Okeechobee & Gulf, 183
 Atlantic, Quebec & Western, 301
 Atlantic, Waycross & Northern, 1016
 Aurora, Elgin & Chicago (Electric), 301
 Badger Railway & Light Co. (Electric), 301, 433, 924
 Bakersfield & Ventura, 1296

Baltimore & Ohio, 183, 813, 924, 969, 1132
 Bamberg, Ehrhardt & Waterboro, 1222, 1296
 Bangor & Aroostook, 257, 1084
 Bartlett-Florence, 1713
 Bartlett-Western, 1713
 Beaumont & Great Northern, 877, 1674
 Bedford & Hollidaysburg, 478
 Belleville & Western, 301
 Bellingham-Skagit Interurban, 924
 Binghamton & Northwestern, 525, 969
 Birmingham & Southeastern, 1084, 1713
 Bismarck, Bellevue Valley & Western, 1333
 Black Lick & Yellow Creek, 257
 Bloomington Southern, 924
 Blue Ridge, 433
 Boise & Interurban, 368
 Boston & Albany, 1713
 Boston & Eastern (Electric), 1713
 Boston & Maine, 257, 303, 877
 Boston & Western Electric, 1186
 Boston (Mass.) Subways, 103
 Brinson Railway, 924
 British Columbia & Dawson, 301
 British Columbia Electric, 478
 Brownwood North & South, 1222
 Bruce Mines & Algoma, 1713
 Buckhannon & Northern, 257, 335, 433
 Buffalo & Northwestern, 103
 Buffalo, Lockport & Rochester (Electric), 710
 Buffalo, Rochester & Pittsburg, 525, 710
 Buffalo Southern (Electric), 1333
 Burr's Ferry, Browndel & Chester, 525
 Butte, Anaconda & Pacific, 257
 California Roads, 62, 257, 877, 1713
 California Roads (Electric), 877, 1186
 Camp Creek Railway, 1447
 Canada & Gulf Terminal, 969
 Canadian Northern, 433, 478, 525, 710, 813, 877, 969, 1016, 1132, 1222, 1333, 1674

Canadian Northern Ontario, 334, 1132, 1296, 1713
 Canadian Northern Quebec, 1132
 Canadian Pacific, 103, 143, 183, 257, 368, 433, 525, 710, 924, 1084, 1222, 1333, 1674, 1713
 Canadian Railways, 368
 Canadian Roads, 478
 Carolina Traction, 183
 Cary North & South, 1132
 Central California Traction, 1084
 Central Canada Railway & Power Co., 334
 Central Terminal Railway, 1333
 Central Vermont, 257, 478, 1016
 Centralia Electric Light & Traction Company, 1333
 Charles City Western, 334
 Charleston & Western Carolina, 1447
 Chattanooga & Atlanta, 103
 Chehalis & Cowlitz, 143, 813, 1333
 Cherryville, Oklahoma & Texas, 1133
 Chesapeake & Ohio, 710, 924
 Chicago & North Western, 433
 Chicago & Wisconsin Valley, 62
 Chicago, Burlington & Quincy, 368
 Chicago, Memphis & Gulf, 969, 1186
 Chicago, Milwaukee & Puget Sound, 103, 143, 1016, 1186, 1222
 Chicago, Rock Island & Pacific, 183, 924, 1296, 1333
 Chicago, St. Paul, Minneapolis & Omaha, 813
 Chicago, Waukegan & Woodstock Traction, 1186
 Chicago, Weatherford & Brazos Valley, 257
 Chouteau & Great Falls, 1713
 Cincinnati & Nashville, 143
 Circuit Terminal, 525
 Citrus Southern (Electric), 813, 1296
 Clear Lake Railroad, 1296
 Cleveland, Akron & Columbus, 433
 Cleveland, Cincinnati, Chicago & St. Louis, 710, 1222, 1674

RAILWAY CONSTRUCTION—Continued.

Clinton & Oklahoma & Western, 924, 1713
 Colorado & Red Canyon, 1333
 Colorado & Southern, 62, 103, 183, 334
 Colorado Interurban Railway, 1296
 Colorado Midland, 334
 Colorado, Oklahoma & New Orleans, 525
 Colorado Railroad, 62, 183
 Colorado Roads, 257
 Columbia & Puget Sound, 368
 Columbus Connecting, 103
 Conewago & Southern, 1186, 1333
 Coney Island & Brooklyn, 62
 Connecticut River Railroad, 877
 Connecticut Roads (Electric), 525
 Copper River & Northwestern, 334, 525, 1133, 1296
 Corvallis & Alsea River, 925
 Crosbyton-South Plains, 1016, 1674
 Crystal City & Uvalde, 143, 710, 1133
 Cullinan Coal & Coke Line, 813
 Cumberland Valley, 301, 1333
 Davenport & Muscatine (Electric), 1714
 Deering Southwestern, 877
 Delaware, Lackawanna & Western, 143
 Denton-Slidell, 143
 Denver & Rio Grande, 103, 143
 Denver, Enid & Gulf, 1084
 Denver, Northwestern & Pacific, 334, 925
 Dermott, Selma & Northern, 1296
 Detroit, Bay City & Western, 258, 925
 Domition Development Railway, 334
 Duluth & Iron Range, 525
 Duluth, Missabe & Northern, 143
 Dunkirk, Allegheny Valley & Pittsburgh, 103
 Durango & Llano Grande, 478
 Durham & Danville, 710
 East St. Louis Interurban, 1186
 Eastern Indiana Traction, 813
 Eastern Maine, 478, 711
 Eastern Utah, 433, 925
 Elberton & Eastern, 1674
 Elgin, Joliet & Eastern, 1222
 El Paso & Southwestern, 969, 1084, 1714
 El Paso, Mountain Park & Oklahoma Central, 1296
 Ephrata & Lebanon, 813
 Erie Railroad, 478, 969, 1186, 1714
 Eureka & Palisade, 1296, 1714
 Everett Railway (Electric), 1187
 Fairmont & Pittsburgh, 970
 Farmington, Albuquerque & Gulf, 525, 813
 Florida East Coast, 335
 Fore River Shore Line, 877
 Fort Dodge, Des Moines & Southern, 1084
 Fort Smith & Western, 433
 Frederick Railroad, 433, 1222
 Fresno, Coalinga & Monterey (Electric), 970, 1714
 Fresno, Hanford & Summit Lake Interurban, 478
 Gallatin Valley, 143
 Garden City, Gulf & Northern, 433
 Gary & Southern Traction, 877
 Genesee & Wyoming, 813
 Georgia & Florida, 478, 877
 Georgia, Midland & Gulf, 877
 Georgia Roads, 433
 Gilmore & Pittsburgh, 970, 1714
 Glendale-Eagle Rock (Electric), 877
 Grafton, Fairmont & Clarksburg (Electric), 1187
 Graham County Railroad, 368
 Grand Trunk, 478, 1016, 1133, 1674
 Grand Trunk Pacific, 103, 368, 525, 711, 813, 877, 925, 1222
 Grant Railroad, 183
 Grants Pass & Rogue River, 368, 433
 Grays Harbor Electric, 1447
 Great Northern, 143, 258, 711, 877, 970, 1187, 1334, 1447
 Great Southern, 970, 1084
 Greenville & Knoxville, 301
 Greenville, Spartanburg & Anderson (Electric), 301, 877, 1674
 Gulf, Colorado & Santa Fe, 1187
 Gulf, Florida & Alabama, 1187
 Gulf, Sabine & Red River, 334
 Gulf, Texas & Western, 1016
 Gulf, Velasco & Northern, 143
 Hagerman Valley & Western, 62
 Hagerstown & Clearspring (Electric), 103, 970
 Halite & Northern, 813
 Hamilton Railway, 1714
 Hampden Railroad, 1334
 Hartford & Summit Lake (Electric), 970
 Harriman Lines, 258
 Hawkinsville & Western, 368, 433
 Henderson Interurban, 877
 Hobart, Cheyenne & Texas Pan Handle, 1714
 Houston & Texas Central, 183, 925
 Houston Bay Shore Traction, 1016
 Hudson & Manhattan, 258, 301, 1334
 Hudson Bay, Peace River & Pacific, 183
 Hudson Bay Railway, 1296
 Hudson River & Eastern (Electric), 1222, 1296
 Hugo & Atoka Northwestern, 368
 Hugo & Northwestern, 1296
 Hummelstown & Campbellstown (Electric), 1674
 Idaho & Washington Northern, 1084
 Idaho Northern Railway, 1296
 Illinois Central, 970, 1334
 Illinois Central Electric, 813
 Imperial Traction Company, 104
 Indianapolis & Delphi Traction, 525, 813
 Indianapolis, Chicago & Meridian (Chicago), 1334
 Indianapolis Grade Changes, 915
 Indianapolis, Nashville & Southern Traction, 301
 Indianapolis Southern, 925
 Intercolonial Railway, 1447
 Iowa City, Ottumwa & Southwestern (Electric), 925
 Iowa City-Ottumwa Interurban, 813
 Iowa Traction Company, 1133
 Isothermal Traction Co., 479
 Jefferson & Northwestern, 1187
 Johnstown Railroad (Electric), 925
 Joliet & Lake Mankato Colonization Railway, 183
 Joplin, Oklahoma & Western, 104
 Kamas Valley, 1447
 Kanawha, Glen Jean & Eastern, 301
 Kansas & Southwestern, 479
 Kansas City, Memphis, 813
 Kansas City, Mexico & Orient, 814, 1223, 1296
 Kansas City Southern, 62, 334, 814, 925
 Kansas, Oklahoma & Panama, 258, 433
 Kansas Roads (Electric), 104
 Kentucky & Tennessee State Line, 1714
 Kentucky Midland, 1084
 Kentucky-Tennessee Traction, 433
 Kettle Valley Lines, 479, 814
 Kittitas Electric, 1296
 Knox County Central, 258
 Kokomo, Frankfort & Western Traction, 1714
 Kootenay Central, 433, 479, 711
 La Crosse & Southwestern, 258, 301
 Lafourche Valley & Gulf, 104
 Lake Erie & Northern, 104, 525
 Lake Shore & Michigan Southern, 711, 1016
 Lake Shore & Pittsburgh, 1016
 Lake Superior Southern, 970
 Laramie, Hahn's Peak & Pacific, 104, 433
 Laton & Western, 925
 Lawton, Duncan & Ardmore, 479, 711
 Lehigh & New England, 107, 143
 Lehigh Valley, 711
 Lehigh Valley Transit Co., 1334, 1674
 Levisa Railroad, 1133
 Lewisburg & Northern, 1447
 Lewisburg, Milton & Watsontown (Electric), 104
 Lexington & Eastern, 1187
 Liberty-White, 1334
 Licking River, 143, 433
 Lida Valley, 301
 Lincoln County (Electric), 258
 Lock Haven & Jersey Shore (Electric), 479, 878
 Long Island, 368, 1084
 Los Angeles & Redondo, 1187
 Los Angeles & San Fernando, 1223
 Louisiana & Arkansas, 62, 301
 Louisiana Roads, 104
 Louisville & Nashville, 62, 104, 970, 1187, 1334, 1447
 Macon, Dublin & Savannah, 1334
 Madison County, 433
 Mahoning & Shenango Railway & Light Co., 479
 Maine Central, 334, 479, 878
 Maine Roads, 183
 Manistique & Lake Superior, 878
 Manitoulin & North Shore, 334, 368
 Manufacturers' Railway, 143
 Marked Tree, Harrisburg & Newport (Electric), 1187
 Marshall & East Texas, 479
 Matanzas Terminal Railroad, 1187
 Maurepas & Northern, 1223
 Maxton, Alma & Southbound, 1674
 Memphis, Dallas & Gulf, 814
 Memphis, Paris & Gulf, 301
 Methow Valley & Washington Northern, 1085, 1133
 Mexican Pacific, 526
 Mexican Roads, 62, 301, 526, 1223
 Mexican Union, 876
 Mexico North Western, 1334
 Michigan Central, 711
 Michigan United Railways, 814
 Midland Continental, 183
 Midland of Manitoba, 878
 Midland Pennsylvania, 434
 Midland Valley, 368, 878, 1714
 Mill Valley & Mt. Tamalpais (Electric), 970
 Milwaukee & Big Creek, 1223
 Milwaukee Northern (Electric), 711, 925
 Milwaukee, Peoria & St. Louis, 711
 Milwaukee Western Electric, 104
 Minneapolis & Rainy River, 143
 Minneapolis, St. Paul & Sault Ste. Marie, 104, 183, 711, 970, 1296
 Minneapolis, St. Paul, Rochester & Dubuque (Electric), 479
 Mississippi Roads, 1296
 Missoula & Hamilton, 143
 Missouri, Arkansas & Gulf, 970, 1016, 1085
 Missouri, Kansas & Texas, 1714
 Missouri, Oklahoma & Gulf, 1674
 Missouri Pacific, 1674
 Missouri River & Northern, 1223
 Monongahela Railroad, 258
 Montana Roads (Electric), 104
 Montgomery & Chattanooga, 301
 Montgomery County Rapid Transit, 369
 Morgan's Louisiana & Texas, 301
 Mount Sterling Short Line, 301
 Mountain Quarry Company Lines, 1223
 Mt. Adams Electric, 1223
 Murray Traction Company, 104
 Muscatine North & South, 878
 Nacogdoches & Southeastern, 1016
 Nashville, Chattanooga & St. Louis, 814
 Nashville-Gallatin Interurban, 104, 143, 1085
 Natchez, Columbia & Mobile, 334
 National Railways of Mexico, 62, 183, 479, 526, 814
 Nazas Valley & Pacific, 301
 Nebraska Transportation Company, 925
 Nevada-California-Oregon, 183, 1016, 1085, 1296
 Nevada Copper Belt, 369, 925
 Nevada Roads, 814
 New Brunswick Coal & Railway, 878
 New Iberia & Northern, 970
 New Mexico Roads, 62, 1334
 New Orleans, Fort Jackson & Grand Isle, 369
 New Orleans Southern, 369
 New Orleans, Texas & Mexico, 1223
 New York Central & Hudson River, 711
 New York Central Lines, 104
 New York Connecting, 258
 New York, New Haven & Hartford, 258, 1133
 New York, Ontario & Western, 301
 New York, Westchester & Boston, 1674
 Nooksack Valley Traction, 925
 Norfolk & Western, 301
 North Carolina Interurban, 479
 North Carolina Roads, 301, 369, 878
 North Carolina Roads (Electric), 183
 North Carolina Traction, 258
 North Carolina-Virginia, 104
 North Coast, 143, 334, 479, 925, 1133, 1187
 North Yakima & Valley, 143, 1334
 Northern Electric, 258, 1223
 Northern Illinois Electric, 334
 Northern Pacific, 143, 302, 526, 1016, 1334
 Nueces River Valley, 183
 Oakland & Antioch (Electric), 479
 Oakland, Antioch & Eastern (Electric), 925
 Oakland & Bay Shore (Electric), 184
 Ocilla Southern, 1016
 Ohio Roads (Electric), 878
 Oklahoma & Golden City, 814
 Oklahoma Pacific, 1296
 Oklahoma Railway (Electric), 334
 Oklahoma Roads, 184, 302, 434
 Oklahoma Short Line (Electric), 104
 Olympic Peninsula (Electric), 1714
 Omaha, Sioux City & Northern, 1675
 Oregon Electric, 258, 711, 1187
 Oregon Roads, 479, 926
 Oregon Roads (Electric), 143, 334, 814, 878, 926, 970, 1016, 1085, 1447, 1675
 Oregon Trunk, 434, 711, 1133
 Oregon-Washington Railroad & Navigation Company, 143, 334, 434, 479, 711, 878, 926, 1133, 1187, 1223
 Overton County Railroad, 143
 Pacific & Idaho Northern, 334
 Pacific & Peace River, 814
 Pacific Coast Railway, 878
 Pacific Electric, 143, 1085, 1187, 1223, 1297
 Pacific Great Western, 184
 Pacific Power & Light Co., 970
 Palacios, San Antonio & Pecos Valley, 1085
 Panama-David Railroad, 62, 302, 479, 814
 Panama Railroad, 62
 Panuco Mountain & Monclova, 526
 Paris & Mount Pleasant, 711
 Parral & Durango, 302
 Payson Electric, 711
 Pecos Valley & Northeastern, 434
 Pecos Valley Southern, 184, 1133, 1223
 Pennsylvania Lines West, 62, 1016, 1085
 Pennsylvania, Monongahela & Southern, 479
 Pennsylvania Railroad, 184, 258, 479, 878, 1085
 Pennsylvania Roads, 711, 926
 Pennsylvania Roads (Electric), 302
 Pennsylvania System, 970
 Pensacola, Mobile & New Orleans, 926, 1714
 People's Electric, 878
 Peoples Railway, 334
 Pere Marquette, 814
 Philadelphia & Western (Electric), 1016
 Phoenix & Eastern, 62
 Piedmont & Northern (Electric), 302, 878
 Piedmont Railway & Electric Company, 1223
 Piedmont Traction Company, 1675
 Pine Brook (Electric), 1297
 Pittsburgh & Great Lakes Connecting, 302
 Pittsburgh & Lake Erie, 258, 1334, 1714
 Pittsburgh & Shawmut, 526, 1085
 Pittsburgh & Susquehanna Valley, 104
 Pittsburgh, Butler, Harmony & New Castle (Electric), 369
 Pittsburgh, Butler, Slippery Rock, Grove City & Northern (Electric), 526
 Pittsburgh, Shawmut & Northern, 526
 Port Boliver Iron Ore, 104, 258
 Porterville Northeastern, 1187, 1447
 Portland & Southeastern, 258
 Portland, Eugene & Eastern (Electric), 926, 1334
 Prairie Farm & Southwestern, 970

Prineville & Eastern, 144
Pueblo & Northeastern, 143
Pueblo & Southeastern, 62, 434

Quebec & Great Northwestern, 184, 1334
Quebec & Saguenay, 334, 711, 814
Quebec Central, 1133
Quebec Railway, Light & Power Company, 334
Quincy & Terre Haute (Electric), 1297

R. & T. Cement Railway (Electric), 184
Raleigh & Southport, 1187
Raleigh, Charlotte & Southern, 1187
Rangeley Lakes & Megantic, 480
Richmond & Urbanna, 711
Richmond, Magog & Stanstead, 334, 814
Richwood & Gauley, 1447
Rock Island, Farwell & Gulf, 1714
Rock Island, Texas & Gulf, 878
Rockport & Port Arkansas, 526

St. Paul & Kansas City Short Line, 1297
St. Louis & San Francisco, 372, 434, 711, 1223, 1675
St. Louis, Arcadia & Jefferson City, 1447
St. Louis, Bartlesville & Pacific, 62
St. Louis, Brownsville & Mexico, 302, 526
St. Louis, El Reno, & Western, 434
St. Louis, Iron Mountain & Southern, 878, 297
St. Louis-Kansas City Electric, 372
St. Louis, Oklahoma & Southern, 526
St. Louis, Peoria & North Western, 434
St. Louis Southwestern, 334, 480, 1133
St. Paul & Des Moines, 926
St. Paul & Kansas City Short Line, 926
St. Paul, Sioux City & South Dakota, 258
St. Paul Southern (Electric), 480
Sacramento-Folsom (Electric), 1223
Sacramento Short Line (Electric), 258
Sacramento-Sierra, 1334
Sacramento Valley West Side (Electric), 1016
Salisbury Railway, 369
Salt Lake & Idaho, 1447
San Antonio & Rio Grande, 1334
San Antonio, Rio Grande & Tampico, 526
San Benito & Rio Grande Valley, 878
San Francisco, Idaho & Montana, 1016
San Francisco, Oakland & San Jose (Electric), 258
San Joaquin Delta (Electric), 1334
San Luis Southern, 302
San Pedro, Los Angeles & Salt Lake, 1133, 1297
Sand Springs Interurban, 369, 1714
Sanford Traction, 144
Savannah, Augusta & Northern, 1447

Scott City Northern, 434
Seattle-Tacoma Short Line (Electric), 1714
Shawnee Short Line (Electric), 369
Shelby Northwestern, 878
Sierra Railway Company of California, 878
Sioux Falls & Sioux City (Electric), 711
Sioux Falls & Southern Minnesota Traction, 1085
Skaneateles Railroad, 1133
South Atlantic Transcontinental, 1334
South Carolina Western, 144
Southern & Tidewater, 1447
Southern Cambria (Electric), 369
Southern Colonization, 970
Southern New England, 1016, 1133
Southern Pacific, 62, 144, 711, 878, 1085, 1297, 1334, 1447, 1675
Southern Railway, 62, 302, 480, 878, 1223
Southern Railway & Navigation Co., 184, 302, 926
Southern Traction, 878
Southwestern Kansas & Colorado, 104
Southwestern Railway, 878
Sparks Western, 480, 878
Spokane International, 1447
Springdale & Long Lake, 814
Stephenville, North & South Texas, 434
Sugarland & Arcola, 712
Sumpter Valley, 369
Sunset Western, 302
Syracuse, Watertown & St. Lawrence River (Electric), 1297, 1714

Taos, Sierra Nevada & San Francisco, 1447
Taxco, Naranjo & Guerrero, 104
Tennessee & North Carolina, 1187
Tennessee, Alabama & Georgia, 144, 712, 1334, 1675
Texas Central, 144, 878
Texas Gulf & Northern, 1714
Texas, Oklahoma & Eastern, 1085
Texas Roads, 258, 302, 369, 970, 1187, 1223, 1675, 1714
Texas Roads (Electric), 712, 878, 1334
Texas Traction, 369
Tidewater & Southern (Electric), 1016, 1085
Tidewater Development Co., 1334
Tidewater Railroad, 144
Toronto Suburban, 334
Torres, Prietas & Represo, 878
Towson, Cockeysville, 1187
Trinity Valley Traction, 712
Tuckahoe & James River, 1133
Tuscaloosa Mineral, 526
Twin City Light & Traction Co., 526

Twin Mountain & Potomac, 1675
Uintah Railway, 434
Uncompahgre & Gunnison Valley, 369
Union Pacific, 434, 526, 814, 926, 1085, 1133
Union Springs & Northern, 1085
United Properties Company, 104, 144, 258
United Railways Company (Electric), 258, 526, 970, 1133, 1187
Utah & Grand Canyon, 258
Utah Roads, 526, 712

Valdosta, Moultrie & Western, 712
Vallejo & Northern (Electric), 1133
Vandalia Railroad, 970
Vashon Island Railway, 334
Velasco, Rosenberg & Northern, 184
Ventura County (Electric), 1297
Ventura Railway, 1223
Vera Cruz & Isthmus, 144, 184
Vera Cruz, Tabasco & Campeche, 712, 878
Virginia & Carolina Southern, 144, 302
Virginia & Southwestern, 144

Wabash-Pittsburgh Terminal, 1675
Wabash Railroad, 104
Waldo Electric, 258
Wasatch Railroad, 1187
Washington & Choctaw, 62
Washington Roads, 1016, 1085
Washington Roads (Electric), 104, 369, 1187, 1297
Watsonville Railway & Navigation Company, 1223
Waukegan, Rockford & Elgin Traction Co., 1297
Western Kentucky (Electric), 1297
Western Maryland, 104, 1714
Western New York & Pennsylvania, 480
Western Pacific, 144, 926, 1447
West Jersey & Seashore, 480
West Penn Traction (Electric), 369, 480
Wheeling & Lake Erie, 1675
Wichita & Midland Valley, 369, 878, 1714
Wichita Falls & Northwestern, 1223, 1334
Wichita Falls & Southern, 1133
Wichita Falls Route, 1133, 1223, 1335
Willamette & Molalla, 1335
Willamette Pacific, 1714
Willamette Valley & Coast, 1297
Winnipeg Northern, 712
Winnipeg, Salina & Gulf, 369, 1675
Winston-Salem Southbound, 526
Winter Harbor & Eastern, 258
Wisconsin Northern, 814, 970
Wrightsville, Adrian & Lyons, 104

RAILWAY FINANCIAL NEWS.

Abilene & Southern, 1715
Albany Southern, 144
Alberta Railway & Irrigation, 926
Albuquerque Eastern, 1017
Algoma Central & Hudson Bay, 1448
Ann Arbor Company, 105
Ann Arbor Railroad, 105, 971
Arizona & New Mexico, 303
Arkansas, Oklahoma & Western, 879, 1086
Astoria & Columbia River, 527
Atchison, Topeka & Santa Fe, 335, 480, 815, 1134, 1298, 1336, 1676
Athens & Tellico, 1336, 1676
Atlanta, Birmingham & Atlantic, 1448
Atlanta, Birmingham & Southern, 1715
Atlanta, Waycross & Northern, 1715
Atlantic Coast Line, 1086, 1336, 1676
Atlantic, Northern & Southern, 302, 1224
Atlantic, Waycross & Northern, 971

Baltimore & Ohio, 105, 302, 335, 1676
Baltimore & Ohio, Chicago Terminal, 971
Baltimore, Chesapeake & Atlantic, 480
Bartlett-Florence, 879, 1336, 1715
Bartlett Western, 1715
Belt Railroad & Stock Yards (Indianapolis, Ind.), 1134
Birmingham & Southeastern, 1134, 1715
Booneville, St. Louis & Southern, 1715
Boston & Maine, 63, 144, 335, 370, 480, 815, 926, 1134, 1188, 1336, 1448, 1676
Boston Railroad Holding Company, 63, 144, 370
Boston, Revere Beach & Lynn, 335
Bruce Mines & Algoma Railway, 1448
Buffalo Creek Railroad, 480
Buffalo, Rochester & Pittsburgh, 259

Cairo & Thebes, 434
Canadian Northern, 815, 971, 1134, 1224
Canadian Pacific, 63, 105, 144, 879, 1134, 1336
Carolina, Clinchfield & Ohio, 302, 1086, 1676
Carthage, Watertown & Sackets Harbor, 63, 105
Central New England, 63, 144, 1188
Central of Georgia, 184, 1134, 1448
Chattanooga & Atlanta, 144
Chattanooga Southern, 144
Chesapeake & Ohio, 370, 815, 879, 1017, 1086, 1134, 1336
Chicago & Alton, 1715
Chicago & Eastern Illinois, 1224, 1448
Chicago & North Western, 480, 815, 971, 1086, 1224, 1336
Chicago, Burlington & Quincy, 370, 1298
Chicago Heights Terminal Transfer, 335
Chicago, Indianapolis & Louisville, 926, 1715
Chicago, Milwaukee & Puget Sound, 480, 926, 1134, 1298, 1336

Chicago, Milwaukee & St. Paul, 184, 480, 1134, 1188, 1448
Chicago, Rock Island & Pacific, 259, 434, 971, 1188, 1448
Chicago Southern, 1715
Chicago, St. Paul, Minneapolis & Omaha, 879, 1188
Chicago, Terre Haute & Southeastern, 480, 1715
Cincinnati, Bluffton & Chicago, 105, 712
Cincinnati, Chicago & Louisville, 879
Cincinnati, Hamilton & Dayton, 434
Cincinnati, New Orleans & Texas Pacific, 971, 1224
Cleveland & Marietta, 105
Cleveland & Pittsburgh, 926
Cleveland, Akron & Columbus, 971
Cleveland, Cincinnati, Chicago & St. Louis, 434, 1715
Cleveland Short Line, 971
Coal & Coke, 302
Colorado & Southern, 144
Connecticut River Railroad, 926
Corvallis & Alsea River, 480
Crosbyton & South Plains, 1017
Cumberland Railway & Coal, 184

Dallas, Cleburne & Southwestern, 63
Delaware & Eastern, 879, 1715
Delaware & Hudson, 144
Delaware, Lackawanna & Western, 63, 1676
Denison, Bonham & New Orleans, 1298, 1448
Denver & Rio Grande, 1448, 1676
Denver, Laramie & Northwestern, 1224
Denver, Northwestern & Pacific, 1134, 1188, 1298, 1676
Des Moines, Iowa Falls & Northern, 1448
Detroit & Mackinac, 1224
Detroit, Toledo & Ironton, 480, 815, 926, 1134, 1715
Detroit United, 335

Eagles Mere Railroad, 971, 1017
End, Ochiltree & Western, 1188
Erie, 370, 372, 434, 1715
Eureka & Palisade, 1336, 1715
Evansville & Terre Haute, 1224

Fitzgerald, Ocilla & Broxton, 335, 527
Florida East Coast, 1224
Fonda, Johnstown & Cleverville, 184, 527
Fort Dodge, Des Moines & Southern, 1134
Frankfort & Cincinnati, 1716

Garden City, Gulf & Northern, 1298
Georgia & Florida, 335
Georgia Railroad & Banking, 815
Gladsden & Birmingham, 144
Grand Trunk, 335, 1017

Grand Trunk Pacific, 144
Grand Trunk Western, 815
Great Northern, 713, 1298, 1336
Green Bay & Western, 815
Gulf & Ship Island, 370
Gulf, Colorado & Santa Fe, 302
Gulf, Texas & Western, 1017

Havana Central, 1086
Hocking Valley, 370, 527, 971, 1134, 1716
Holyoke & Westfield, 302
Houston Belt & Terminal, 879, 1716
Hudson & Manhattan, 302
Hudson Companies, 302, 1298

Illinois Central, 184, 481, 971, 1448
Illinois Tunnel, 1086
Indiana Harbor Belt, 481
Indianapolis Southern, 370, 926, 1134
Indianapolis Union, 1676
Intercolonial Railway, 926, 1188, 1448
International & Great Northern, 971, 1188, 1336, 1448

Jonesboro, Lake City & Eastern, 481
Kanawha & Michigan, 370, 1336
Kansas City & Memphis, 879, 1017, 1086
Kansas City, Fort Scott & Memphis, 1188
Kansas City, Mexico & Orient, 335, 879, 1086
Kansas City Southern, 259, 815, 1134, 1188
Kansas City Viaduct & Terminal, 184
Kentucky & Indiana Terminal Railroad, 105, 1298
Knoxville, Sevierville & Eastern, 926

Lake Champlain & Moriah, 1448
Lake Erie & Pittsburgh, 1017, 1298, 1336
Lake Shore & Michigan Southern, 63, 815, 1336
Lake Superior & Ishpeming, 481
Lancaster, Oxford & Southern, 481
Lehigh & Hudson River, 1716
Lexington & Eastern, 1716
Long Island, 481, 1017, 1336
Louisville & Nashville, 1017, 1134, 1336, 1676, 1716
Louisiana Southern, 1448

Macon, Dublin & Savannah, 815
Maine Central, 926, 971, 1448, 1716
Manistique & Lake Superior, 971
Manitoulin & North Shore, 971
Manufacturers' Railway (St. Louis), 971
Marshall & East Texas, 481
Maxton, Alma & Southbound, 1336
Metropolitan Street Railway, 105
Michigan Central, 1298, 1716
Michigan United Railways, 1086

RAILWAY FINANCIAL NEWS—Continued.

Middletown, Unionville & Water Gap, 712
 Minneapolis, St. Paul & Sault Ste. Marie, 481, 527
 Missouri, Kansas & Texas, 63, 144, 184, 712, 879, 1017, 1134, 1224, 1336, 1448
 Missouri Pacific, 335, 527, 712, 926, 971, 1017, 1086, 1224, 1448
 Mobile & Ohio, 370
 Monte Ne Railway, 879, 1086
 Narragansett Pier Railroad, 1336
 National Railways of Mexico, 105, 879, 1086, 1336, 1448, 1676
 New Brunswick Southern, 63, 144
 New Mexico Central, 1017
 New Orleans Terminal Co., 481
 New York Central & Hudson River, 184, 335, 370, 481, 527, 815, 926
 New York Connecting Railroad, 1017
 New York, New Haven & Hartford, 63, 144, 184, 302, 370, 815, 879, 1017, 1086, 1134, 1188, 1224, 1298, 1336
 New York, Ontario & Western, 259, 302, 370
 Nezperce & Idaho, 1676
 Norfolk Southern, 105, 145, 185, 434, 926
 Norfolk Terminal Railway, 527
 Northern Central, 481, 971, 1086
 Northern Pacific, 527
 Ocala Southern, 335
 Ohio Electric Railway, 259
 Oklahoma Railway (Electric), 302
 Old Colony Railroad, 527
 Oneida Railway, 481
 Oregon Electric, 302
 Oregon Short Line, 1086, 1298
 Oregon-Washington Railroad & Navigation Company, 63, 1298, 1676
 Pais & Mount Pleasant, 1188
 Pennsylvania Company, 1676
 Pennsylvania Lines, 1676
 Pennsylvania Railroad, 481, 527, 712, 815, 926, 971, 1086, 1298
 Pennsylvania Southern, 145
 Pensacola, Mobile & New Orleans, 1716
 Peoria & Eastern, 370
 Pere Marquette, 434, 712, 879, 1448
 Philadelphia & Reading, 185, 335, 1017, 1716
 Philadelphia, Baltimore & Washington, 1716
 Pittsburgh & Lake Erie, 434, 481, 927
 Pittsburgh & Shawmut, 185, 370
 Pittsburgh, Binghamton & Eastern, 63, 481
 Pittsburgh, Cincinnati, Chicago & St. Louis, 927, 1086
 Pittsburgh, Shawmut & Northern, 185, 302
 Pittsburgh, Summerville & Clarion, 145
 Pontiac, Oxford & Northern, 815
 Portland Terminal Company, 1448, 1716
 Reading Company, 105, 185, 259, 335, 527, 1716
 Rutland Railroad, 370, 927, 1224
 St. Joseph & Grand Island, 105, 481
 St. Louis & San Francisco, 107, 145, 481, 815, 927, 971, 1017, 1086, 1224, 1298, 1336, 1448
 St. Louis, Brownsville & Mexico, 1336
 St. Louis, Iron Mountain & Southern, 434, 527, 1298
 St. Louis, Oklahoma & Southern, 527
 St. Louis Southwestern, 302, 481, 1017
 St. Maurice Valley Railway, 63, 145
 St. Paul & Des Moines, 1188
 St. Louis Southwestern, 185
 Savannah & Statesboro, 335
 Savannah, Augusta & Northern, 335
 Seaboard Air Line, 145, 185, 971, 1086, 1716
 South Side Elevated, 1298
 Southern Pacific, 105, 185, 259, 335, 434, 927, 1676, 1716
 Southern Railway, 105, 370, 815, 971
 Southwestern of Texas, 481
 Spokane, Portland & Seattle, 259, 527, 879
 Springfield Street Railway, 879
 Stephenville, North & South Texas, 1017
 Temiskaming & Northern Ontario, 481
 Temple & Northwestern, 527
 Tennessee & North Carolina, 971
 Tennessee, Alabama & Georgia, 145, 302, 712
 Tennessee Central, 927
 Terminal Railroad Association of St. Louis, 927
 Texas & Pacific, 527
 Texas Central, 145, 527, 1298
 Toledo, Columbus & Ohio River, 1676
 Trinity & Brazos Valley, 1188
 Ulster & Delaware, 1188
 Underground Electric of London, 527
 Union Pacific, 1298, 1716
 Union Springs & Northern, 1134
 Union Pacific, 481
 Valley Railroad, 105
 Vandalia, 1134
 Vermont Valley Railroad, 927
 Wabash, 145
 Wabash-Pittsburgh Terminal, 145, 185, 303, 527, 815, 971, 1448, 1716
 Wabash Railroad, 185, 815, 1448, 1716
 Washington, Baltimore & Annapolis, 712
 West Shore, 481, 927
 Western Maryland, 105, 1086, 1224, 1298, 1676
 Western Pacific, 1134
 Wheeling & Lake Erie, 185, 259, 303, 1448, 1716
 Wilmington, New Castle & Southern, 105
 Washington, Potomac & Chesapeake, 1716
 Winston-Salem Southbound, 303
 Wisconsin & Michigan, 527
 Worcester, Nashua & Rochester, 1298
 Wrightsville & Tennille Railroad, 879

